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(54) Title: DI-ARYL SUBSTITUTED TETRAZOLE MODULATORS OF METABOTROPIC GLUTAMATE RECEPTOR-5

(57) Abstract: Tetrazole compounds substituted directly, or by a bridge, with i) a heteroaryl moiety containing N adjacent to the point of connection of the heteroaryl and ii) another heteroaryl or aryl ring, with at least one of the rings being further substituted with another ring, are mGluR5 modulators useful in the treatment of psychiatric and mood disorders such as, for example, schizophrenia, anxiety, depression, panic, and bipolar disorder, as well as in the treatment of pain, Parkinson s disease, cognitive dysfunction, epilepsy, circadian rhythm disorders, drug addiction, drug abuse, drug withdrawal, obesity and other diseases.

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TITLE OF THE INVENTION

DI-ARYL SUBSTITUTED TETRAZOLE MODULATORS OF METABOTROPIC GLUTAMATE RECEPTOR-5

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

The present invention is directed to tetrazole compounds substituted with i) a heteroaryl ring and ii) another heteroaryl or aryl ring with at least one of the rings being further substituted with another ring. In particular, this invention is directed to tetrazole compounds substituted directly, or by a bridge, with i) a heteroaryl moiety containing N adjacent to the point of connection of the heteroaryl and ii) another heteroaryl or aryl ring, with at least one of the rings being further substituted with another ring, which are metabotropic glutamate receptor — subtype 5 ("mGluR5") modulators useful in the treatment of psychiatric and mood disorders such as, for example, schizophrenia, anxiety, depression, panic, bipolar disorder, and circadian rhythm disorders, as well as in the treatment of pain, Parkinson's disease, cognitive dysfunction, epilepsy, drug addiction, drug abuse, drug withdrawal, obesity and other diseases.

RELATED BACKGROUND

A major excitatory neurotransmitter in the mammalian nervous system is the glutamate molecule, which binds to neurons, thereby activating cell surface receptors. Such surface receptors are characterized as either ionotropic or metabotropic glutamate receptors. The metabotropic glutamate receptors ("mGluR") are G protein-coupled receptors that activate intracellular second messenger systems when bound to glutamate. Activation of mGluR results in a variety of cellular responses. In particular, mGluR1 and mGluR5 activate phospholipase C, which is followed by mobilizing intracellular calcium.

Modulation of metabotropic glutamate receptor subtype 5 (mGluR5) is useful in the treatment of diseases that affect the nervous system (see for example W.P.J.M Spooren et al., *Trends Pharmacol. Sci.*, <u>22</u>:331-337 (2001) and references cited therein). For example, recent evidence demonstrates the involvement of mGluR5 in nociceptive processes and that modulation of mGluR5 using mGluR5-

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selective compounds is useful in the treatment of various pain states, including acute, persistent and chronic pain [K Walker et al., Neuropharmacology, 40:1-9 (2001); F. Bordi, A. Ugolini Brain Res., 871:223-233 (2001)], inflammatory pain [K Walker et al., Neuropharmacology, 40:10-19 (2001); Bhave et al. Nature Neurosci. 4:417-423 (2001)] and neuropathic pain [Dogrul et al. Neurosci. Lett. 292:115-118 (2000)].

Further evidence supports the use of modulators of mGluR5 in the

treatment of psychiatric and neurological disorders. For example, mGluR5-selective compounds such as 2-methyl-6-(phenylethynyl)-pyridine ("MPEP") are effective in animal models of mood disorders, including anxiety and depression [W.P.J.M Spooren et al., J. Pharmacol. Exp. Ther., 295:1267-1275 (2000); E. Tatarczynska et al, Brit. J. Pharmacol., 132:1423-1430 (2001); A. Klodzynska et al, Pol. J. Pharmacol., 132:1423-1430 (2001)]. Gene expression data from humans indicate that modulation of mGluR5 may be useful for the treatment of schizophrenia [T. Ohnuma et al, Mol. Brain. Res., 56:207-217 (1998); ibid, Mol. Brain. Res., 85:24-31 (2000)].

Studies have also shown a role for mGluR5, and the potential utility of mGluR5-modulatory compounds, in the treatment of movement disorders such as Parkinson's disease [W.P.J.M Spooren et al., Europ. J. Pharmacol. 406:403-410 (2000); H. Awad et al., J. Neurosci. 20:7871-7879 (2000); K. Ossawa et al. Neuropharmacol. 41:413-420 (2001)]. Other research supports a role for mGluR5 modulation in the treatment of cognitive dysfunction [G. Riedel et al, Neuropharmacol. 39:1943-1951 (2000)], epilepsy [A. Chapman et al, Neuropharmacol. 39:1567-1574 (2000)] and neuroprotection [V. Bruno et al, Neuropharmacol. 39:2223-2230 (2000)]. Studies with mGluR5 knockout mice and MPEP also suggest that modulation of these receptors may be useful in the treatment of drug addiction, drug abuse and drug withdrawal [C. Chiamulera et al. Nature Neurosci. 4:873-874 (2001)].

International Patent Publications WO 01/12627 and WO 99/26927 describe heteropolycyclic compounds and their use as metabotropic glutamate receptor antagonists.

U.S. Patent No. 3,647,809 describes pyridyl-1,2,4-oxadiazole derivatives. U.S. Patent No. 4,022,901 describes 3-pyridyl-5-isothiocyanophenyl oxadiazoles. International Patent Publication WO 98/17652 describes oxadiazoles, WO 97/03967 describes various substituted aromatic compounds, JP 13233767A and WO 94/22846 describe various heterocyclic compounds.

Compounds that include ringed systems are described by various investigators as effective for a variety of therapies and utilities. For example,

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International Patent Publication No. WO 98/25883 describes ketobenzamides as calpain inhibitors, European Patent Publication No. EP 811610 and U.S. Patent Nos. 5,679,712, 5,693,672 and 5,747,541describe substituted benzoylguanidine sodium channel blockers, and U.S. Patent No. 5,736,297 describes ring systems useful as a photosensitive composition.

However, there remains a need for novel compounds and compositions that therapeutically inhibit mGluR5 with minimal side effects.

SUMMARY OF THE INVENTION

The present invention is directed to novel tetrazole compounds substituted directly, or by a bridge, with i) a heteroaryl moiety containing N adjacent to the point of connection of the heteroaryl and ii) another heteroaryl or aryl ring, with at least one of the rings being further substituted with another ring, which are metabotropic glutamate receptor – subtype 5 modulators useful in the treatment of psychiatric and mood disorders such as, for example, schizophrenia, anxiety, depression, bipolar disorders, and panic, as well as in the treatment of pain, Parkinson's disease, cognitive dysfunction, epilepsy, circadian rhythm and sleep disorders – such as shift-work induced sleep disorder and jet-lag, drug addiction, drug abuse, drug withdrawal, obesity and other diseases. This invention also provides a pharmaceutical composition which includes an effective amount of the novel tetrazole compounds substituted with a heteroaryl moiety, and a pharmaceutically acceptable carrier.

This invention further provides a method of treatment of psychiatric and mood disorders such as, for example, schizophrenia, anxiety, depression, panic, bipolar disorders, and circadian rhythm and sleep disorders, as well as a method of treatment of pain, Parkinson's disease, cognitive dysfunction, epilepsy, obesity, drug addiction, drug abuse and drug withdrawal by the administration of an effective amount of the novel tetrazole compounds substituted with a heteroaryl moiety.

DETAILED DESCRIPTION OF THE INVENTION

The compounds of the present invention are represented by Formula (I):

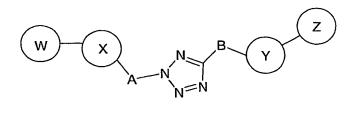
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(I)

or a pharmaceutically acceptable salt thereof, wherein

X and Y each independently is aryl or heteroaryl wherein at least one of X and Y is a heteroaryl with N adjacent to the position of attachment to A or B respectively;

X is optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or

-C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C1-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-

7cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), or -N(C₀₋₆alkyl)(aryl) groups;

 R^1 , R^2 , and R^3 each independently is $-C_0$ -6alkyl, $-C_3$ -7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_1$ -6alkyl, $-O(C_0$ -6alkyl), $-O(C_3$ -7cycloalkyl), -O(aryl), $-N(C_0$ -

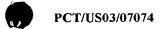
6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents; R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-SO2- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 9 SO2- $-C_0$ -2alkyl- or -heteroC $_0$ -4alkyl;

 $W\ is\ -C_3\ -7 cycloalkyl,\ -heteroC_3\ -7 cycloalkyl,\ -C_0\ -6 alkylaryl,\ or\ -C_0\ -6 alkylheteroaryl\ optionally\ substituted\ with\ 1-7\ independent\ halogen,\ -CN,\ NO_2,\ -C_1\ -6 alkyl,\ -C_1\ -6 alkynyl,\ -OR^1,\ -NR^1R^2,\ -C(=NR^1)NR^2R^3,$

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-N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is optionally substituted with 1-7 independent halogen, -CN, NO₂,

-C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷,

-N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸,

-SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or

-C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl

substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or

-N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

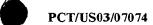
R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

B is $-C_0$ -alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2alkyl-NR 10 CO- C_0 -2alkyl-, $-C_0$ -2alkyl-NR 10 SO2- C_0 -2alkyl- or -heteroC0-4alkyl;

R9 and R10 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; Z is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-

6alkylheteroaryl optionally substituted with 1-7 independent halogen, –CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, –OR¹, –NR¹R², –C(=NR¹)NR²R³, – N(=NR¹)NR²R³, –NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, –NR¹CONR²R³, –SR⁴, -SOR⁴, –SO₂R⁴, –SO₂NR¹R², -COR¹, -CO₂R¹, –CONR¹R², -C(=NR¹)R², or – C(=NOR¹)R² substituents;

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one of W and Z is optionally absent; and any N may be an N-oxide.

In one aspect, the compounds of this invention are represented by

Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is 2-pyridyl optionally substituted with 1-4 independent halogen,

-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R²,

-C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴,

-NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R²,

-C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or

-N(C₀-6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents;

R4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-SO2- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 9 SO2- $-C_0$ -2alkyl- or -heteroC0-4alkyl;

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³,

30 -N(=NR1)NR2R3, -NR1COR2, -NR1CO₂R2, -NR1SO₂R4, -NR1CONR2R3,-SR4, -SOR4, -SO₂R4, -SO₂NR1R2, -COR1, -CO₂R1, -CONR1R2, -C(=NR1)R2, or -C(=NOR1)R2 substituents;

Y is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkenyl, -C1-6alkynyl, -OR 5 , -NR 5 R 6 ,

 $-C(=NR^5)NR^6R^7$, $-N(=NR^5)NR^6R^7$. $-NR^5COR^6$, $-NR^5CO_2R^6$, $-NR^5SO_2R^8$,

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-NR5CONR6R7,—SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R⁵, R⁶, and R⁷ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents; R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

B is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2alkyl-NR¹⁰CO- C_0 -2alkyl-, $-C_0$ -2alkyl- NR¹⁰SO2- C_0 -2alkyl- or -hetero C_0 -4alkyl;

R9 and R10 each independently is -C0-6alkyl, -C3-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1_6alkyl, -O(C0_6alkyl), -O(C3_7cycloalkyl), -O(aryl), -N(C0_6alkyl)(C0_6alkyl), -N(C0_6alkyl)(C3_7cycloalkyl), -N(C0_6alkyl)(aryl) substituents; Z is -C3_7cycloalkyl, -heteroC3_7cycloalkyl, -C0_6alkylaryl, or -C0_

6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1₋6alkyl, -C1₋6alkenyl, -C1₋6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In an embodiment of this one aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

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X is 2-pyridyl optionally substituted with 1-4 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

 R^1 , R^2 , and R^3 each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), -O(aryl), $-N(C_{0-6}$ alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents;

R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

A is -C₀₋₄alkyl, -C₀₋₂alkyl-SO-C₀₋₂alkyl-, -C₀₋₂alkyl-SO₂-C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹CO-C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹SO₂-C₀₋₂alkyl- or -heteroC₀₋₄alkyl;

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³,

25 -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷,

-N(=NR5)NR6R7, -NR5COR6, -NR5CO₂R6, -NR5SO₂R8, -NR5CONR6R7,-SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-

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7cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), or -N(C₀₋₆alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; R8 is -C1-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -N(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

B is $-C_0$ -alkyl, $-C_0$ -2alkyl $-S_0$ - $-C_0$ -2alkyl-, $-C_0$ -2alkyl-0.

R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

Z is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-

6alkylheteroaryl optionally substituted with 1-7 independent halogen, –CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, –OR¹, –NR¹R², –C(=NR¹)NR²R³, -N(=NR¹)NR²R³, –NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, –NR¹CONR²R³, –SR⁴, -SOR⁴, –SO₂NR¹R², -COR¹, -CO₂R¹, –CONR¹R², -C(=NR¹)R², or – C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In a second aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-

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6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), or -N(C0-6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(aryl) substituents;

R⁴ is -C₁₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-NR 9 SO2- $-C_0$ -2alkyl- or -heteroC0-4alkyl;

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or

-C(=NOR¹)R² substituents; Y is 2-pyridyl optionally substituted with 1-4 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR5)NR6R7, -N(=NR5)NR6R7, -NR5COR6, $-NR5CO_2R6$, $-NR5SO_2R8$,

25 -NR5CONR6R7,-SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-

7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent

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 $\label{eq:condition} $$ halogen, -CN, -C_{1-6alkyl}, -O(C_{0-6alkyl}), -O(C_{3-7cycloalkyl}), -O(aryl), -N(C_{0-6alkyl}), -N(C_{0-6alkyl})(C_{3-7cycloalkyl}), -N(C_{0-6alkyl})(aryl) $$ substituents;$

R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

 $B\ is\ -C_0-2alkyl-SO-C_0-2alkyl-NR^{10}CO-C_0-2alkyl-, -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-, -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-, -C_0-2alkyl-NR^{10}SO_2-C_0-2alkyl-, -C_0-2alkyl-, -C_0-2alkyl-, -C_0-2alkyl-NR^{10}SO_2-C_0-2alkyl-, -C_0-2alkyl-, -C_0-2alky$

R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(aryl) substituents; Z is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylaryl, or -C₀-6alkylaryl, or -C₀-6alkylaryl, -C

6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In a third aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

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 $R^1, R^2, \text{ and } R^3 \text{ each independently is $-C_{0-6}alkyl$, $-C_{3-7}cycloalkyl$,} \\ \text{heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent} \\ \text{halogen, $-CN$, $-C_{1-6}alkyl$, $-O(C_{0-6}alkyl)$, $-O(C_{3-7}cycloalkyl)$, $-O(aryl)$, $-N(C_{0-6}alkyl)$, $-N(C_{0-6}alkyl$

R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

A is -C₀-4alkyl, -C₀-2alkyl-SO-C₀-2alkyl-, -C₀-2alkyl-SO₂-C₀-2alkyl-, -C₀-2alkyl-NR⁹CO-C₀-2alkyl-, -C₀-2alkyl-NR⁹SO₂-C₀-2alkyl- or -heteroC₀-4alkyl;

W is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³,

-N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR5)NR6R7, -N(=NR5)NR6R7, -NR5COR6, -NR5CO₂R6, -NR5SO₂R8, -NR5CONR6R7, -SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), or

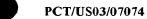
-N(C₀-6alkyl)(aryl) groups;

R⁵, R⁶, and R⁷ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl)(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents; R⁸ is -C₁₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋

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7cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents;

B is $-C_0$ -alkyl, $-C_0$ -2alkyl $-S_0$ - $-C_0$ -2alkyl-, $-C_0$

 R^9 and R^{10} each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), -O(aryl), $-N(C_{0-6}$ alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents;

 $Z \ is \ -C_3 - 7 cycloalkyl, -heteroC_3 - 7 cycloalkyl, -C_0 - 6 alkylaryl, or \ -C_0 - 6 alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2, -C_1 - 6 alkyl, -C_1 - 6 alkynyl, -O_1 - 6 alkynyl, -O_1 - N_1R^2, -C(=N_1)N_2R^3, -N_1CO_2R^3, -N_1CO_2R^2, -N_1SO_2R^4, -N_1CO_2R^3, -N_1CO_2R$

one of W and Z is optionally absent; and any N may be an N-oxide.

In an embodiment of this third aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

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 R^4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents;

A is -C₀₋₄alkyl, -C₀₋₂alkyl-SO-C₀₋₂alkyl-, -C₀₋₂alkyl-SO₂-C₀₋₂alkyl-, -C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹CO-C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹SO₂-C₀₋₂alkyl- or -heteroC₀₋₄alkyl;

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is 2-pyridyl optionally substituted with 1-4 independent halogen,

-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,

-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,

-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R⁵, R⁶, and R⁷ each independently is -C₀-6alkyl, -C₃-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

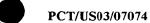
R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl),

-N(C₀₋₆alkyl)(aryl) substituents;

 $B\ is\ -C_0-2alkyl-SO-C_0-2alkyl-,\ -C_0-2alkyl-SO_2-C_0-2alkyl-,\ -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-,\ -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-,\ -C_0-2alkyl-NR^{10}SO_2-C_0-2alkyl-,\ -c_0-2alkyl-,\ -c_0-2a$

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R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(aryl) substituents; Z is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In a fourth aspect, the compounds of this invention are represented by

Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1_6alkyl, -C1_6alkenyl, -C1_6alkynyl, -OR¹, -NR¹R²,

-C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴,

-NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R²,

-C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C1_6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1_6alkyl, -O(C0_6alkyl), -O(C3_7cycloalkyl), -N(C0_6alkyl)(C0_6alkyl), -N(C0_6alkyl)(C3_7cycloalkyl), or

-N(C0_6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents;

 R^4 is -C₁₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents;

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A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl- NR 9 SO2- $-C_0$ -2alkyl- or -heteroC $_0$ -4alkyl;

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀
6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁
6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³,

-N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³,-SR⁴,

-SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or

-C(=NOR¹)R² substituents;

Y is 1,3-thiazolyl optionally substituted with 1-2 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; R8 is -C1-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally

substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

B is $-C_0$ -4alkyl, $-C_0$ -2alkyl $-S_0$ -C_0-2alkyl-, $-C_0$ -2alkyl $-S_0$ -C_0-2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-0.

 R^9 and R^{10} each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), -O(aryl), $-N(C_{0-6}$ alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents;

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 $Z is -C3_7 cycloalkyl, -heteroC3_7 cycloalkyl, -C0_6 alkylaryl, or -C0_6 alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1_6 alkyl, -C1_6 alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;$

one of W and Z is optionally absent; and any N may be an N-oxide.

In an embodiment of this fourth aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is phenyl optionally substituted with 1-5 independent halogen, –CN, NO₂, -C1₋₆alkyl, -C1₋₆alkenyl, -C1₋₆alkynyl, –OR¹, –NR¹R², –C(=NR¹)NR²R³,

-N(=NR¹)NR²R³. -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-

7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

 R^4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl), $-N(C_{0-6}$ al

30 -N(C₀-6alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-SO2- $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 9 SO2- $-C_0$ -2alkyl- or -heteroC $_0$ -4alkyl;

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W is $-C_3$ -7cycloalkyl, $-heteroC_3$ -7cycloalkyl, $-C_0$ -6alkylaryl, or $-C_0$ -6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2 , $-C_1$ -6alkyl, $-C_1$ -6alkenyl, $-C_1$ -6alkynyl, $-OR^1$, $-NR^1R^2$, $-C(=NR^1)NR^2R^3$, $-N(=NR^1)NR^2R^3$. $-NR^1COR^2$, $-NR^1CO_2R^2$, $-NR^1SO_2R^4$, $-NR^1CONR^2R^3$, $-SR^4$, $-SO_2R^4$, $-SO_2NR^1R^2$, $-COR^1$, $-CO_2R^1$, $-CONR^1R^2$, $-C(=NR^1)R^2$, or $-C(=NOR^1)R^2$ substituents;

Y is 1,3-thiazolyl optionally substituted with 1-2 independent halogen, –CN, NO₂, -C1₋₆alkyl, -C1₋₆alkenyl, -C1₋₆alkynyl, -OR⁵, –NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, –NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, –SR⁸, -SO₂R⁸, –SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or –C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the –C1₋

7cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), or -N(C₀₋₆alkyl)(aryl) groups;

6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-

R⁵, R⁶, and R⁷ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(aryl) substituents;

R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

B is $-C_0$ -4alkyl, $-C_0$ -2alkyl $-S_0$ -C $_0$ -2alkyl-, $-C_0$ -2alkyl $-S_0$ -C $_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 10 SO2 $-C_0$ -2alkyl- or -heteroC $_0$ -4alkyl;

R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

Z is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³,

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-N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In a fifth aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

 R^1 , R^2 , and R^3 each independently is $-C_0$ -6alkyl, $-C_3$ -7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

 $A is -C_0-4alkyl, -C_0-2alkyl-SO-C_0-2alkyl-, -C_0-2alkyl-SO_2-C_0-2alkyl-, -C_0-2alkyl-CO-C_0-2alkyl-, -C_0-2alkyl-NR^9CO-C_0-2alkyl-, -C_0-2alkyl-NR^9SO_2-C_0-2alkyl- or -heteroC_0-4alkyl; \\$

W is -C0_6alkylaryl or -C0_6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1_6alkyl, -C1_6alkenyl, -C1_6alkynyl, -OR1, -NR1R2, -C(=NR1)NR2R3, -N(=NR1)NR2R3, -NR1COR2, -NR1CO₂R2, -NR1SO₂R4, -NR1CONR2R3, -SR4, -SOR4, -SO₂R4, -SO₂NR1R2, -COR1, -CO₂R1, -CONR1R2, -C(=NR1)R2, or -C(=NOR1)R2 substituents;

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Y is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R⁵, R⁶, and R⁷ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₀-6alkyl) substituents;

R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

B is -C₀-4alkyl, -C₀-2alkyl-SO-C₀-2alkyl-, -C₀-2alkyl-SO₂-C₀-2alkyl-, -C₀-2alkyl-CO-C₀-2alkyl-, -C₀-2alkyl-NR¹⁰CO-C₀-2alkyl-, -C₀-2alkyl-NR¹⁰SO₂-C₀-2alkyl- or -heteroC₀-4alkyl;

R⁹ and R¹⁰ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)

6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; Z is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkynyl, -OR1, -NR1R2, -C(=NR1)NR2R3, -N(=NR1)NR2R3, -NR1COR2, -NR1CO₂R2, -NR1SO₂R4, -NR1CONR2R3, -SR4,

-SOR4, $-SO_2R^4$, $-SO_2NR^1R^2$, $-COR^1$, $-CO_2R^1$, $-CONR^1R^2$, $-C(=NR^1)R^2$, or $-C(=NOR^1)R^2$ substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

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In a sixth aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is aryl or heteroaryl optionally substituted with 1-7 independent halogen, –CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, –OR¹, –NR¹R²,

-C(=NR1)NR2R3, -N(=NR1)NR2R3, -NR1COR2, -NR1CO₂R2, -NR1SO₂R4, -NR1CONR2R3, -SR4, -SOR4, -SO₂R4, -SO₂NR1R2, -COR1, -CO₂R1, -CONR1R2, -C(=NR1)R2, or -C(=NOR1)R2 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C1-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -N(C0-6alkyl), -N(C0-6alkyl), -N(C0-6alkyl), or

-N(C₀₋₆alkyl)(aryl) groups; R¹, R², and R³ each independently is -C₀₋₆alkyl, -C₃₋₇cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent

halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

 R^4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl)($-O(C_{0-6}$ alkyl)($-O(C_{0-6}$ alkyl)($-O(C_{0-6}$ alkyl)($-O(C_{0-6}$ alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-NR 9 CO- $-C_0$ -2alkyl-NR 9 SO2- $-C_0$ -2alkyl- or -heteroC0-4alkyl;

W is $-C_{0-6}$ alkylaryl or $-C_{0-6}$ alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2 , $-C_{1-6}$ alkyl, $-C_{1-6}$ alkenyl, $-C_{1-6}$ alkynyl, $-OR_1$, $-NR_1R_2$, $-C(=NR_1)NR_2R_3$, $-N(=NR_1)NR_2R_3$, $-NR_1COR_2$, $-NR_1COR_2$, $-NR_1COR_2R_3$, $-NR_1COR_2R_3$, $-SOR_4$, $-SO_2R_4$, $-SO_2NR_1R_2$, $-COR_1$, $-CO_2R_1$, $-CONR_1R_2$, $-C(=NR_1)R_2$, or $-C(=NOR_1)R_2$ substituents;

Y is pyrazolyl optionally substituted with 1-3 independent halogen,

-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,

-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,

-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-

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substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), or -N(C0-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

 R^8 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(aryl) substituents;

B is $-C_0$ -4alkyl, $-C_0$ -2alkyl $-S_0$ - $-C_0$ -2alkyl-, $-C_0$ -2alkyl-0.

 $R^9 \ and \ R^{10} \ each \ independently \ is \ -C_{0-6} alkyl, \ -C_{3-7} cycloalkyl,$ heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁₋₆ alkyl, -O(C₀₋₆ alkyl), -O(C₃₋₇ cycloalkyl), -O(aryl), -N(C₀₋₆ alkyl)(C₀₋₆ alkyl), -N(C₀₋₆ alkyl)(C₃₋₇ cycloalkyl), -N(C₀₋₆ alkyl)(aryl) substituents;

 $Z is -C_3-7 cycloalkyl, -heteroC_3-7 cycloalkyl, -C_0-6 alkylaryl, or -C_0-6 alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C_1-6 alkyl, -C_1-6 alkynyl, -OR_1, -NR_1R_2, -C(=NR_1)NR_2R_3, -N(=NR_1)NR_2R_3, -NR_1COR_2, -NR_1CO_2R_2, -NR_1SO_2R_4, -NR_1CONR_2R_3, -SR_4, -SOR_4, -SO_2R_4, -SO_2NR_1R_2, -COR_1, -CO_2R_1, -CONR_1R_2, -C(=NR_1)R_2, or -C(=NOR_1)R_2 substituents;$

one of W and Z is optionally absent; and any N may be an N-oxide.

In an embodiment of this sixth aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C1₋₆alkyl, -C1₋₆alkenyl, -C1₋₆alkynyl, -OR1, -NR¹R², -C(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form

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a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁₋₆alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁₋₆alkyl, -O(C₀₋₆alkyl), -O(C₃₋₇cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), or -N(C₀₋₆alkyl)(aryl) groups;

 R^1 , R^2 , and R^3 each independently is $-C_0$ -6alkyl, $-C_3$ -7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_1$ -6alkyl, $-O(C_0$ -6alkyl), $-O(C_3$ -7cycloalkyl), -O(aryl), $-N(C_0$ -6alkyl)(C_0 -6alkyl), $-N(C_0$ -6alkyl)(C_0 -6alkyl), $-N(C_0$ -6alkyl)(C_0 -6alkyl) (C_0 -6a

R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl $-S_0$ - $-C_0$ -2alkyl-, $-C_0$ -2alkyl $-S_0$ - $-C_0$ -2alkyl-, $-C_0$ -2alkyl-0.

W is $-C_0$ -6alkylaryl or $-C_0$ -6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2 , $-C_1$ -6alkyl, $-C_1$ -6alkenyl, $-C_1$ -6alkynyl, $-OR_1$, $-NR_1R_2$, $-C(=NR_1)NR_2R_3$, $-N(=NR_1)NR_2R_3$, $-NR_1COR_2$, $-NR_1COR_2$, $-NR_1COR_2$, $-NR_1COR_2$, $-NR_1COR_2$, $-SO_2R_4$, $-SO_2R_4$, $-SO_2NR_1R_2$, $-COR_1$,

-NR1SO₂R⁴, -NR1CONR²R³, -SR⁴, -SO₂R⁴, -SO₂RR¹R², -COR1 -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is pyrazolyl optionally substituted with 1-3 independent halogen, – CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,

-NR5CONR6R7,-SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-

7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent

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halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), -O(aryl), $-N(C_{0-6}$ alkyl)(C_{0-6} alkyl), $-N(C_{0-6}$ alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents; R⁸ is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-6}$

5 7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

 $B\ is\ -C_0-2alkyl,\ -C_0-2alkyl-SO-C_0-2alkyl-,\ -C_0-2alkyl-SO_2-C_0-2alkyl-,\ -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-,\ -C_0-2alkyl-NR^{10}SO_2-C_0-2alkyl-\ or\ -heteroC_0-4alkyl;$

R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents; Z is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-

6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In a seventh aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

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-N(C₀-6alkyl)(aryl) substituents;

R1, R2, and R3 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; R⁴ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C₀₋₆alkyl)(C₀₋₆alkyl), -N(C₀₋₆alkyl)(C₃₋₇cycloalkyl), -N(C₀₋₆alkyl)(aryl) substituents; A is -C₀₋₄alkyl, -C₀₋₂alkyl-SO-C₀₋₂alkyl-, -C₀₋₂alkyl-SO₂-C₀₋ 2alkyl-, -C₀₋₂alkyl-CO-C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹CO-C₀₋₂alkyl-, -C₀₋₂alkyl-NR⁹SO₂-C₀₋₂alkyl- or -heteroC₀₋₄alkyl; W is -C0-6alkylaryl or -C0-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR1, -NR1R2, -C(=NR1)NR2R3, -N(=NR1)NR2R3, -NR1COr2, $-NR1CO_2R2$. -NR1SO₂R4, -NR1CONR2R3, -SR4, -SO₂R4, -SO₂NR1R2, -COR1, $-CO_2R^1$, $-CONR^1R^2$, $-C(=NR^1)R^2$, or $-C(=NOR^1)R^2$ substituents: Y is imidazolyl optionally substituted with 1-3 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR5)NR6R7, -N(=NR5)NR6R7, -NR5COR6, -NR5CO₂R6, -NR5SO₂R8. -NR5CONR6R7,-SR8, -SOR8, -SO2R8, -SO2NR5R6, -COR5, -CO2R5, -CONR5R6, 20 -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C1_ 6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), or -N(C₀₋₆alkyl)(aryl) groups; R5. R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1_6alkyl, -O(C0_6alkyl), -O(C3_7cycloalkyl), -O(aryl), -N(C0_ 6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents; R8 is -C1-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl),

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B is $-C_0$ -4alkyl, $-C_0$ -2alkyl $-S_0$ -C_0-2alkyl-, $-C_0$ -2alkyl-S_02-C_0-2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 10 CO-C_0-2alkyl-, $-C_0$ -2alkyl- NR 10 SO2-C_0-2alkyl- or -heteroC_0-4alkyl;

R9 and R10 each independently is -C0-6alkyl, -C3-7cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

Z is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkenyl, -C1-6alkynyl, -OR1, -NR1R2, -C(=NR1)NR2R3, -N(=NR1)NR2R3, -NR1COR2, -NR1CO₂R2, -NR1SO₂R4, -NR1CONR2R3, -SR4, -SOR4, -SO₂R4, -SO₂NR1R2, -COR1, -CO₂R1, -CONR1R2, -C(=NR1)R2, or -C(=NOR1)R2 substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In an embodiment of this seventh aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R¹, R², and R³ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl) substituents;

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 R^4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(C_{0-6} alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl- NR 9 SO2- $-C_0$ -2alkyl- or -hetero $-C_0$ -4alkyl;

W is -C3-7cycloalkyl, -heteroC3-7cycloalkyl, -C0-6alkylaryl, or -C0-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkynyl, -OR1, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is imidazolyl optionally substituted with 1-3 independent halogen, — CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

 R^5 , R^6 , and R^7 each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl,

heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

R⁸ is -C₁-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl),

-N(C₀₋₆alkyl)(aryl) substituents;

B is -C₀₋₄alkyl, -C₀₋₂alkyl-SO-C₀₋₂alkyl-, -C₀₋₂alkyl-SO₂-C₀₋₂alkyl-, -C₀₋₂alkyl-NR¹⁰CO-C₀₋₂alkyl-, -C₀₋₂alkyl-

NR¹⁰SO₂-C₀-2alkyl- or -heteroC₀-4alkyl;

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 $R^9 \ and \ R^{10} \ each \ independently \ is -C_{0-6} alkyl, -C_{3-7} cycloalkyl,$ heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -Cl_6 alkyl, -O(C_{0-6} alkyl), -O(C_{3-7} cycloalkyl), -O(aryl), -N(C_{0-6} alkyl)(C_{0-6} alkyl), -N(C_{0-6} alkyl)(C_{3-7} cycloalkyl), -N(C_{0-6} alkyl)(aryl) substituents;

Z is $-C_3$ -7cycloalkyl, -hetero C_3 -7cycloalkyl, $-C_0$ -6alkylaryl, or $-C_0$ -6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkenyl, -C1-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂NR¹R², -COR¹, -COR¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

In an eighth aspect, the compounds of this invention are represented by Formula (I) or a pharmaceutically acceptable salt thereof, wherein

 $\label{eq:continuous} X is 3-pyridyl optionally substituted with 1-4 independent halogen, -- CN, NO_2, -C_{1-6}alkyl, -C_{1-6}alkynyl, -C_{1-6}alkynyl, -OR^1, -NR^1R^2, -- C(=NR^1)NR^2R^3, -N(=NR^1)NR^2R^3, -NR^1COR^2, -NR^1CO_2R^2, -NR^1SO_2R^4, -- NR^1CONR^2R^3, -SR^4, -SO_2R^4, -SO_2NR^1R^2, -COR^1, -CO_2R^1, -CONR^1R^2, -COR^2, -NR^2R^2, -COR^2, -COR$

-C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

 $R^1, R^2, \text{ and } R^3 \text{ each independently is $-C_{0-6}alkyl$, $-C_{3-7}cycloalkyl$,} \\ \text{heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent} \\ \text{halogen, $-CN$, $-C_{1-6}alkyl$, $-O(C_{0-6}alkyl)$, $-O(C_{3-7}cycloalkyl)$, $-O(aryl)$, $-N(C_{0-6}alkyl)$, $-N(C_{0-6}alkyl$

 R^4 is $-C_{1\text{-}6}$ alkyl, $-C_{3\text{-}7}$ cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, $-C_{1\text{-}6}$ alkyl, $-O(C_{0\text{-}6}$ alkyl), $-O(C_{0\text{-}6}$ alkyl), $-O(C_{0\text{-}6}$ alkyl), $-N(C_{0\text{-}6}$ alkyl)($C_{3\text{-}7}$ cycloalkyl), $-N(C_{0\text{-}6}$ alkyl)($C_{3\text{-}7}$ cycloalkyl), $-N(C_{0\text{-}6}$ alkyl)(aryl) substituents;

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A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2

W is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

Y is aryl or heteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; R8 is -C1-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally

substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

B is $-C_0$ -2alkyl, $-C_0$ -2alkyl-SO-C_0-2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-, $-C_0$ -2alkyl-NR 10 CO-C_0-2alkyl-, $-C_0$ -2alkyl- NR 10 SO₂-C₀-2alkyl- or -heteroC₀-4alkyl;

 R^9 and R^{10} each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), -O(aryl), $-N(C_{0-6}$ alkyl)(C_{3-7} cycloalkyl), $-N(C_{0-6}$ alkyl)(aryl) substituents;

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 $Z \ is \ -C3-7 cycloalkyl, \ -heteroC3-7 cycloalkyl, \ -C0-6 alkylaryl, \ or \ -C0-6 alkylheteroaryl optionally substituted with 1-7 independent halogen, \ -CN, NO2, \ -C1-6 alkyl, \ -C1-6 alkenyl, \ -C1-6 alkynyl, \ -OR^1, \ -NR^1R^2, \ -C(=NR^1)NR^2R^3, \ -N(=NR^1)NR^2R^3, \ -NR^1COR^2, \ -NR^1CO_2R^2, \ -NR^1SO_2R^4, \ -NR^1CONR^2R^3, \ -SR^4, \ -SOR^4, \ -SO_2R^4, \ -SO_2NR^1R^2, \ -COR^1, \ -CO_2R^1, \ -CONR^1R^2, \ -C(=NR^1)R^2, \ or \ -C(=NOR^1)R^2 \ substituents;$

one of W and Z is optionally absent; and any N may be an N-oxide.

As used herein, "alkyl" as well as other groups having the prefix "alk" such as, for example, alkoxy, alkanoyl, alkenyl, alkynyl and the like, means carbon chains which may be linear or branched or combinations thereof. Examples of alkyl groups include methyl, ethyl, propyl, isopropyl, butyl, sec- and tert-butyl, pentyl, hexyl, heptyl and the like. "Alkenyl", "alkynyl" and other like terms include carbon chains containing at least one unsaturated C-C bond.

The term "cycloalkyl" means carbocycles containing no heteroatoms, and includes mono-, bi- and tricyclic saturated carbocycles, as well as fused ring systems. Such fused ring systems can include one ring that is partially or fully unsaturated such as a benzene ring to form fused ring systems such as benzofused carbocycles. Cycloalkyl includes such fused ring systems as spirofused ring systems.

Examples of cycloalkyl include cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, decahydronaphthalene, adamantane, indanyl, indenyl, fluorenyl, 1,2,3,4-tetrahydronaphalene and the like. Similarly, "cycloalkenyl" means carbocycles containing no heteroatoms and at least one non-aromatic C-C double bond, and include mono-, bi- and tricyclic partially saturated carbocycles, as well as benzofused cycloalkenes. Examples of cycloalkenyl include cyclohexenyl, indenyl, and the like.

The term "aryl" means an aromatic substituent which is a single ring or multiple rings fused together. When formed of multiple rings, at least one of the constituent rings is aromatic. The preferred aryl substituents are phenyl and naphthyl groups.

The term "cycloalkyloxy" unless specifically stated otherwise includes a cycloalkyl group connected by a short C_{1-2} alkyl length to the oxy connecting atom.

The term "C₀₋₆alkyl" includes alkyls containing 6, 5, 4, 3, 2, 1, or no carbon atoms. An alkyl with no carbon atoms is a hydrogen atom substituent when the alkyl is a terminal group and is a direct bond when the alkyl is a bridging group.

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The term "hetero" unless specifically stated otherwise includes one or more O, S, or N atoms. For example, heterocycloalkyl and heteroaryl include ring systems that contain one or more O, S, or N atoms in the ring, including mixtures of such atoms. The hetero atoms replace ring carbon atoms. Thus, for example, a heterocycloC5alkyl is a five-member ring containing from 4 to no carbon atoms. Examples of heteroaryls include pyridinyl, quinolinyl, isoquinolinyl, pyridazinyl, pyrimidinyl, pyrazinyl, quinoxalinyl, furyl, benzofuryl, dibenzofuryl, thienyl, benzthienyl, pyrrolyl, indolyl, pyrazolyl, indazolyl, oxazolyl, benzoxazolyl, isoxazolyl, thiazolyl, benzothiazolyl, isothiazolyl, imidazolyl, benzimidazolyl, oxadiazolyl, thiadiazolyl, triazolyl, and tetrazolyl. Examples of heterocycloalkyls include azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, tetrahydrofuranyl, imidazolinyl, pyrolidin-2-one, piperidin-2-one, and thiomorpholinyl.

The term "heteroC₀₋₄alkyl" means a heteroalkyl containing 3, 2, 1, or no carbon atoms. However, at least one heteroatom must be present. Thus, as an example, a heteroC₀₋₄alkyl having no carbon atoms but one N atom would be a -NH-if a bridging group and a -NH₂ if a terminal group. Analogous bridging or terminal groups are clear for an O or S heteroatom.

The term "amine" unless specifically stated otherwise includes primary, secondary and tertiary amines substituted with C₀-6alkyl.

The term "carbonyl" unless specifically stated otherwise includes a Co-6alkyl substituent group when the carbonyl is terminal.

The term "halogen" includes fluorine, chlorine, bromine and iodine atoms.

The term "optionally substituted" is intended to include both substituted and unsubstituted. Thus, for example, optionally substituted aryl could represent a pentafluorophenyl or a phenyl ring. Further, optionally substituted multiple moieties such as, for example, alkylaryl are intended to mean that the aryl and the aryl groups are optionally substituted. If only one of the multiple moieties is optionally substituted then it will be specifically recited such as "an alkylaryl, the aryl optionally substituted with halogen or hydroxyl."

Compounds described herein contain one or more double bonds and may thus give rise to cis/trans isomers as well as other conformational isomers. The present invention includes all such possible isomers as well as mixtures of such isomers.

added to aid solubility and the reaction temperature was increased to 90°C. After 1.5h, reaction was complete by TLC analysis. Reaction was quenched at rt with H₂O (20mL), then concentrated via rotary evaporation. The crude residue was partitioned in a separatory funnel with EtOAc (100mL) and H₂O (50mL). The EtOAc layer was washed with an additional portion of H₂O (50mL), then dried (MgSO₄), filtered, and concentrated *in vacuo*. The residue was then purified by silica gel chromatography, eluting with 3:1 EtOAc:Hexanes to afford 3-methoxy-4-(3-methyl-1,2,4-oxadiazol-5-yl)aniline as a tan solid. ¹H NMR (CD₃OD, 500 MHz) δ 7.72 (m, 1H), 6.31-6.37 (m, 2H), 3.87 (s, 3H), 2.36 (s, 3H). MS (ESI) 206.1 (M+H) ⁺.

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COMPOUND 6

2-{2-[3-(Trimethylstannyl)phenyl]-2H-tetrazol-5-yl}pyridine

A solution of 2-[2-(3-bromophenyl)-2*H*-tetrazol-5-yl]pyridine (750mg, 2.5mmol), hexamethylditin (895mg, 2.8mmol), cesium fluoride (418mg, 2.8mmol) and tetrakis(triphenylphosphine)palladium(0) (145mg, 0.13mmol) in 20mL of dry toluene was degassed with nitrogen for 15min. The solution was heated to 100°C and stirred under nitrogen for 6h. The reaction mixture was allowed to cool to rt, diluted with 10mL of ethyl acetate, and then filtered through a pad of Celite. Water (40mL) was added to the solution, extracted with 3 X 40mL of ethyl acetate, and then the organic extracts were combined and washed with brine. The extracts were dried over Na₂SO₄, filtered, and then concentrated. The crude material was chromatographed over silica gel, eluting with 30% EtOAc/hexanes. Purification yielded a yellow oil, which crystallized upon sitting to afford 2-{2-[3-(trimethylstannyl)phenyl]-2*H*-tetrazol-5-yl}pyridine as a light yellow solid. ¹H NMR (CD₃OD, 500 MHz) δ 8.72-8.88 (m, 1H), 8.39-8.43 (m, 2H), 8.21-8.22 (m, 1H), 7.92-7.95 (m, 1H), 7.60-7.62 (m, 1H), 7.52-7.55 (m, 1H), 7.46-7.48 (m, 1H), 0.40 (s, 9H).

EXAMPLE 5

2-[2-(2-Pyrazin-3-ylphenyl)-2H-tetrazol-5-yl]pyridine

A vial containing 2-[2-(3-trimethylstannylylphenyl)-2*H*-tetrazol-5-yl]pyridine (70mg, 0.18mmol), chloropyrazine (23mg, 2.0mmol), tris(dibenzylideneacetone)dipalladium(0) (10mg, 0.01mmol), cesium fluoride (60mg, 0.4mmol), and tri-t-butyl-phosphine (0.101mL of 10% weight in hexanes, 0.05mmol) was sealed with a septum cap and purged with nitrogen. Degassed dioxane (2mL) was added to the vial via syringe and stirred under nitrogen for 10min. The reaction

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mixture was subjected to microwave conditions at 140°C for 600s using the Personal Chemistry Smith Creator microwave instrument. The reaction mixture was diluted with EtOAc, then extracted with 3X EtOAc and water. The organic extracts were combined, dried over NaSO₄, filtered, and then concentrated. The crude material was chromatographed over silica gel, eluting with 75% EtOAc/hexanes, to yield a yellow solid. The solid was further purified with a Waters preparatory HPLC instrument to yield 2-[2-(2-pyrazin-3-ylphenyl)-2*H*-tetrazol-5-yl]pyridine as a light yellow solid. ¹H NMR (CD₃OD, 500 MHz) 9.34 (s, 1H), 9.08 (s, 1H), 8.98 (m, 1H), 8.86 (s, 1H), 8.81 (m, 1H), 8.69 (m, 1H), 8.62 (t, 1H), 8.41-8.45 (m, 2H), 8.08 (m, 1H), 7.90 (t, 1H). MS 302 (M+H) ⁺.

<u>EXAMPLE 6</u> 2-[2-(4-Morpholin-3-ylphenyl)-2*H*-tetrazol-5-yl]pyridine

To a flask containing 2-[2-(4-bromophenyl)-2H-tetrazol-5-yl]pyridine (150mg, 0.5mmol), tris(dibenzylideneacetone)dipalladium(0) (26mg, 0.025mmol), 2-15 (dicyclohexylphosphino)biphenyl (18mg, 0.05mmol), and sodium t-butoxide (67mg, 0.7mmol), degassed toluene was added and the resulting mixture was stirred under nitrogen until homogeneity. Morpholine (53µL, 0.6mmol) was added to the mixture via syringe, and the reaction was heated to 80°C. The solution was then stirred for 20 18h under nitrogen. The reaction mixture was quenched with water (20mL), extracted with EtOAc (3 X 20mL), and washed with brine. The organic phase was dried over Na₂SO₄ and concentrated in vacuo. The crude residue was chromatographed on silica gel eluting with 40% EtOAc in hexanes to afford a yellow solid. This was dissolved in anhydrous THF (10mL) and HCl (1.5equiv) in ether was added, the precipitate was filtered to afford 2-[2-(4-morpholin-3-ylphenyl)-2H-tetrazol-5-yl]pyridine as a yellow 25 solid. 1 H NMR ((CD₃)₂SO, 300 MHz) δ 8.82 (d, 1H), 8.28 (d, 1H), 8.08 (dt, 1H), 7.51-7.68 (m, 4H), 7.23 (m, 1H), 3.77 (m, 4H), 3.25 (m, 4H). MS (ESI) MS 309 $(M+H)^+$.

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EXAMPLE 7

2-{2-[3-(2H-Tetrazol-5-yl)phenyl]-2H-tetrazol-5-yl}pyridine

3-(5-Pyridin-2-yl-2*H*-tetrazol-2-yl)benzonitrile (300mg, 1.21mmol), sodium azide (86.5mg, 1.33mmol) and zinc bromide (272mg, 1.21mmol) were suspended in water (3mL). The reaction was capped with a reflux condenser and

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stirred at 90°C for 24h, after which time it was cooled to rt and HCl 3N (1.5mL) and ethyl acetate (20mL) were added and the mixture stirred vigorously until no solid was left. The organic layer was isolated and aqueous layer extracted with ethyl acetate (2 x 20mL). The combined organic layers were evaporated,10mL of 0.25N NaOH was added, the mixture was stirred for 30min, until the original precipitate was dissolved and a suspension of zinc hydroxide was formed. The suspension was filtered, and the solid washed with 10 ml 1 N NaOH. To the filtrate was added 2mL of 3N HCl with stirring causing the tetrazole to precipitate. The tetrazole was filtered and washed with 5mL of 3N HCl and dried in vacuo to afford white powder. ¹H NMR (CD₃OD, 500 MHz) δ 8.91 (s, 1H), 8.83 (d, 1H), 8.41 (d, 1H), 8.32-8.25 (m, 2H), 8.09 (t, 1H), 7.95 (t, 1H), 7.64 (t, 1H). MS 292.1 (M+H)⁺.

EXAMPLE 8

2-Pyridin-2-yl-5-(5-pyridin-2-yl-2H-tetrazol-2-yl)benzonitrile

2-[2-(3-Fluoro-4-pyridin-2-ylphenyl)-2*H*-tetrazol-5-yl]pyridine (300 mg, 0.94 mmol) and sodium cyanide (92 mg, 1.9 mmol) were suspended in methyl sulfoxide (6 ml). The reaction was capped with a reflux condenser and stirred at 170°C for 16 h, after which time it was cooled to ambient temperature. To the reaction solution added ethyl acetate (10 ml) then water (60 ml) causing 2-pyridin-2-yl-5-(5-pyridin-2-yl-2*H*-tetrazol-2-yl)benzonitrile to precipitate as white powder. ¹H NMR (CD₃OD, 500 MHz) δ 8.84-8.81 (m, 2H), 8.73 (d, 1H), 8.60 (dd 1H), 8.32 (d, 1H), 8.24 (d, 1H), 8.09-8.07 (m, 2H), 8.01 (d, 1H), 7.64 (m, 1H), 7.58(m, 1H). MS 326.2 (M+H) ⁺.

25 **EXAMPLE 9** to **EXAMPLE 347** shown below were all prepared similarly to the schemes and procedures described above (ND = not determined).

EXAMPLE	Structure	¹H NMR	MS (ESI)
9.		9.72 (m, 2H), 9.45 (d, 1H), 8.90-	MS 302.1
	N N N N N N N N N N N N N N N N N N N	8.99 (m, 3H), 8.77 (d, 1H), 8.55-	(M+H) ⁺ .
		8.62 (m, 2H), 8.32 (dd, 1H), 8.07	
1		(dd, 1H).	

EXAMPLE	Structure	¹H NMR	MS (ESI)
10.	9-	8.87 (d, 1H), 8.38 (d, 1H), 7.98-7.92	MS 330.6
	I.N. N.	(m, 2H), 7.88 (d, 1H), 7.59-7.38 (m,	(M+H) +.
	N=N	7H), 3.97 (s, 3H).	
11.		8.75-8.77 (d, 1H), 8.66-8.68 (d, 1H),	MS 315.1
	N=N N=N	8.35-8.38 (d, 1H), 8.23 (s, 1H), 8.15-	(M+H) ⁺ .
		8.19 (d, 1H), 8.06-8.10 (t, 1H), 7.96-	
		8.00 (t, 1H), 7.58-7.62 (m, 3H),	
		7.46-7.50 (m, 1H), 2.45 (s, 3H)	
12.	N. J.	ND	MS 300.1
	N N=N		(M+H) ⁺ .
13.		ND	MS 300.2
	EN N-N-		(M+H) ⁺ .
14.		8.82 – 8.83 (m, 1H), 8.76 (d, 1H),	MS 290.2
	N-Ñ	8.67 (t, 1H), 8.30 (d, 1H), 8.06 –	(M+H) ⁺ .
,	N N N N N N N N N N N N N N N N N N N	8.14 (m, 3H), 7.81 – 7.86 (m, 2H),	
	N=N	7.64 (ddd, 1H), 6.64 (dd, 1H).	
15.		8.83 (d, 1H), 8.50 (s, 1H), 8.32 (d,	MS 330
		1H), 8.18-8.20 (m, 1H), 8.08-8.11	(M+H) +
	N N N H ₃ C	(m, 1H), 7.97 (d, 1H), 7.81 (t, 1H),	
	14-N	7.64 (m, 1H), 7.47 (t, 1H), 7.39 (d,	
		1H), 7.34 (m, 1H), 7.05 (dd, 1H),	
		3.92 (s, 3H).	
16.	N	9.32 (s, 2H), 9.29 (s, 1H), 8.83 (m, 1	MS 302
		H), 8.59 (t, 1H), 8.28-8.33 (m, 2H),	(M+H) +
	N N	8.07-8.13 (m, 2H), 7.90 (t, 1H), 7.62	
	N=N	(m, 1H).	
17.	NH ₂	8.83 (m, 1H), 8.41 (m, 1H), 8.31 (d,	MS 315
	I CL N	1H), 8.25-8.27 (m, 1H), 8.10 (dt,	(M+H) +
	N N=N	1H), 7.95 (d, 1H), 7.86 (t, 1H), 7.82	

EXAMPLE	Structure	¹ H NMR	MS (ESI)
		(d, 1H), 7.76 (m, 1H), 7.63-7.66 (m,	ļ
		2H), 7.40 (d, 1H), 3.90 (brm).	
18.		8.92 – 8.93 (m, 1H), 8.80 – 8.82 (m,	MS 301
		1H), 8.75 – 8.77 (m, 1H), 8.23 –	(M+H) ⁺ .
	N N=N	8.34 (m, 3H), 8.14 – 8.17 (m, 1H),	
:		8.07 (ddd, 1H), 7.97 (ddd, 1H), 7.82	
		(dd, 1H), 7.62 (ddd, 1H), 7.44 – 7.48	;
		(m, 1H).	
19.		9.04 (d, 1H, $J = 2.8$ Hz), $8.81 - 8.30$	MS 301
		(m, 1H), 8.67 (dd, 1H), 8.47 – 8.48	$(M+H)^+$.
	N N N N N N N N N N N N N N N N N N N	(m, 1H), 8.30 – 8.32 (m, 1H), 8.23 –	
	N	8.28 (m, 2H), 8.08 (ddd), 8.02 – 8.04	
		(m, 1H), 7.85 (dd, 1H), 7.63 (ddd,	
		1H), 7.55 – 7.60 (m, 1H).	,
20.		8.81 – 8.83 (m, 1H), 8.71 – 8.73 (m,	MS 301
		2H), 8.51 – 8.52 (m, 1H), 8.26 –	(M+H) ⁺ .
	N N N	8.32 (m, 2H), 8.05 – 8.11 (m, 2H),	
	n-p	7.84 – 7.89 (m, 3H), 7.62 (ddd, 1H).	
· 21.	\$]	8.83 (m, 1H), 8.47 (m, 1H), 8.31 (m,	MS 306
		1H), 8.18 (t, 1H), 8.09 (m, 1H),	(M+H) +
	N N=N	8.08(t, 1H), 8.01 (m, 1H), 7.72-7.79	
	14	(m, 3H), 7.63 (m, 1H).	
22.		8.84 (d, 1H), 8.39 (m, 1H), 8.32 (d,	MS 306
		1H), 8.12 (d, 1H), 8.08 (dt, 1H), 7.96	(M+H) +
	N N N	(d, 1H), 7.77 (d, 1H), 7.76 (d, 1H),	
	14~W	7.71 (d, 1H), 7.64 (dd, 1H), 7.24 (dd,	
	8 01	1H)	
23.	N-CH3	9.10 (s, 2H), 8.83 (m, 1H), 8.31 (m,	MS 332
		1H), 8.31 (d, 1H), 8.20 (m, 1H), 8.12	(M+H) +
	N N N	(dt, 1H), 8.06 (m, 1H), 7.86 (t, 1H),	
	N=N	7.58-7.68 (m, 2H), 4.05 (s, 3H).	
			L

EXAMPLE	Structure	¹H NMR	MS (ESI)
24.	O-CH ₃	8.82 (m, 1H), 8.65 (d, 1H), 8.41 (t,	MS 331
		1H), 8.31 (d, 1H), 8.16-8.21 (m,	(M+H) +
	L _N N	2H), 8.09 (dt, 1H),7.96 (d, 1H), 7.81	
	N=N	(t, 1H), 7.64 (m, 1H), 6.99 (d, 1H),	
		3.93 (s, 3H).	
25.		8.47 (d, 1H), 8.38 (d, 1H), 7.98 (s,	MS 357.7
	N N=N	1H), 7.91-7.82 (m, 3H), 7.70-7.65	(M+Na) +
		(t, 1H) 7.57-7.53 (m, 1H), 7.34-7.31	
	, 	(t, 1H), 7.22-7.20 (m, 1H), 6.26 (b,	
		1H)	
26.	O N	8.92 (d, 1H), 8.84 (d, 1H), 8.74 (dd,	MS 331.0
	NNNN	1H), 8.50 (d, 1H), 8.39 (d, 1H),	(M+H) ⁺ .
	N=N	8.09-8.27 (m, 4H), 8.01 (d, 1H),	
		7.73-7.78 (m, 1H), 4.14 (s, 3H).	
27.	O N-	8.97 (d, 1H), 8.80 (d, 1H), 8.66 (dd,	MS 337.0
	NNNNS	1H), 8.52 (d, 1H), 8.18-8.21 (m,	(M+H) ⁺ .
	N=N	2H), 8.09-8.14 (m, 2H), 8.03 (d,	
		1H), 4.30 (s, 3H).	
28.		9.42 (s, 1H), 9.11 (d, 1H), 8.99 (d,	MS 335.1
		1H), 8.91 (br, 1H), 8.72 (s, 1H),	(M+H) +.
	N N=N	8.70~8.60 (m, 1H), 8.50~8.55 (m,	
	i cı	1H), 8.44 (dd, 1H), 8.28 (dd, 1H),	
		8.21 (m, 1H), 7.88~7.84 (m, 1H).	<u> </u>
29.		8.24 (s, 1H), 8.94 (dd, 1H),	MS 331.0
	I N C	8.90~8.80 (m, 1H), 8.55 (d, 1H),	(M+H) +.
	N=N	8.45~8.8.33 (m, 3H), 8.23 (dd, 1H),	
		8.78~8.82 (m, 1H), 7.55 (d, 1H),	
		4.03 (s, 3H).) fa cas s
30.	N. S.N.	ND	MS 290.0
	N=N		(M+H) +.

EXAMPLE	Structure	¹ H NMR	MS (ESI)
31.		8.84-8.86 (d, 1H), 8.34-8.37 (m,	MS 343.0
	EN N. W. T.	2H), 8.14-8.18 (m, 1H), 7.89-7.95	(M+H) ⁺ .
	N=N CI	(m, 1H), 7.43-7.47 (m, 1H), 7.18-	
	I	7.21 (d, 1H), 3.91-3.94 (t, 4H), 3.15-	
	 	3.18 (t, 4H).	ì
32.	, N	9.37 (s, 1H) 9.07 (d, 1H), 8.96 (br,	MS 335.0
		2H), 8.78-8.75 (m, 1H), 8.60 (t, 1H),	(M+H) +
	N=N	8.46 (s, 1H), 8.24-8.23 (m, 2H),	
		8.13-8.04 (m, 2H).	
33.		8.87 (d, 1H), 8.38 (d, 1H), 7.98-7.92	MS 330.6
	EN N. N.	(m, 2H), 7.88 (d, 1H), 7.59-7.38 (m,	(M+H) ⁺ .
	N=N	7H), 3.97 (s, 3H).	
34.	QNKA	9.05 (m,2H), 8.84 (m, 2H), 8.75	MS 318.8
	N=N N=N	(1H), 8.46 (m, 3H), 8.219(m, 3H).	(M+H) ⁺ .
35.	020	8.86 (d, 1H), 8.75 (s, 1H), 8.69 (s,	MS 359.0
		1H), 8.49 (d,d 1H), 8.38 (d, 1H),	$(M+H)^+$.
	N=N N-	7.93 (t, 1H), 7.80 (m, 2H), 7.57 (d,	
		1H), 7.47 (t, 1H), 7.32 (t, 1H).	
36.	□ •	8.82 (d, 1H), 8.4 (s, 1H), 8.33 (d,	MS 330
		1H), 8.20 (m, 1H), 8.1 (m, 1H), 7.97	(M+H) +
	N=N	(d, 1H), 7.81 (t, 1H), 7.62 (dd, 1H),	
		7.48 (t, 1H), 7.38 (d, 1H), 7.34 (m,	
		1H), 7.05 (dd, 1H), 3.85 (s, 3H).	
37.		9.20 (s, 1H), 9.02 (d, 2H), 8.84 (d,	MS 302
		1H), 8.64 (d, 1H), 8.38 (dd, 1H),	(M+H) +
	N=N	8.33 (d, 1H), 8.11 (dt, 1H), 7.89 (t,	
·		1H), 7.65 (dd, 1H), 7.58 (t, 1H).	
38.		8.83 (d, 1H), 8.52 (m, 1H), 8.38 (m,	MS 325
	1 () N X	1H), 8.32 (d, 1H), 8.25 (m, 1H), 8.20	(M+H) +
	N N=N	(m, 1H), 8.10 (dt, 1H), 8.05 (d, 1H),	
		7.94 (d, 1H), 7.85 (t, 1H), 7.76 (t,	
		1H), 7.64 (m, 1H).	l

EXAMPLE	Structure	¹H NMR	MS (ESI)
39.	N.	8.84 (d, 1H), 8.74 (d, 1H), 8.32 (m,	MS 307
	s	2H), 8.21 (d, 1H), 8.10 (m, 1H), 8.06	(M+H) +
	N N N N	(m, 1H), 7.96 (m, 1H), 7.87 (m, 1H),	
	272	7.64 (m, 1H).	
40.		8.83 (d, 1H), 8.40 (s, 1H), 8.32 (d,	MS 330
	N N N	1H), 8.19 (m, 1H), 8.10 (dt, 1H),	(M+H) +
	- 0	7.97 (d, 1H), 7.81 (t, 1H), 7.64 (dd,	
	:	1H), 7.47 (t, 1H), 7.38 (d, 1H), 7.34	
		(m, 1H), 7.05 (dd, 1H), 3.88, (s, 3H).	
41.		8.82 (d, 1H), 8.25-8.32 (m, 3H),	MS 315
		8.09 (dt, 1H), 7.85 (t, 1H), 7.79 (d,	(M+H) +
	N N=N	1H), 7.64 (m, 1H), 7.47 (m, 2H),	
	."	7.41 (m, 1H), 7.34 (m, 1H), 3.73	
		(bm, 2H).	
42.		8.84 (d, 1H), 8.30-8.32 (m, 3H),	MS 315
	N N N N	8.10 (m, 1H), 7.87 (d, 2H), 7.65 (dd,	(M+H) ⁺
	N N	1H), 7.44-7.49 (m, 3H), 7.36 (m,	
		1H).	
43.		9.06 (d, 1H), 9.00, (d, 1H), 8.78 (dd,	MS 345.3
	" "=" " " " " " " " " " " " " " " " " "	1H), 8.23 (dd, 1H), 8.06 (m, 2H),	(M+H) +
		7.70 (d, 1H), 7.64 (m, 2H), 7.58 (m,	
		1H), 7.54 (m, 1H), 4.09 (s, 3H).	
44.		9.22 (s, 1H), 9.00 (d, 1H), 8.93 (d,	MS 331.3
	N N=N N=N	1H), 8.89 (d, 1H), 8.83 (d, 1H), 8.72	(M+H) +
		(dd, 1H), 8.23 (dd, 1H), 8.09-8.16	
		(m, 3H), 7.89 (d, 1H), 4.09 (s, 3H).	
45.	N N N	8.89 (d, 1H), 8.68 (dd, 1H), 8.34 (d,	MS 336.8
	N=N N	1H), 8.11-8.15 (m, 3H), 8.07 (dd,	(M+H) +
	~~	1H), 7.97-8.00 (m, 2H), 4.12 (s, 3H).	3.50.0.10
46.		8.94 (t, 1H), 8.82 (d, 1H), 8.41 (dd,	MS 340
	I LN N	1H), 8.31 (d, 1H), 8.19 (dd, 1H),	(M+H) ⁺
	N=N	8.18 (d, 1H), 8.16 (d, 1H), 8.14 (s,	
·		1H), 8.09 (dt, 1H), 7.88 (t, 1H), 7.64	<u> </u>

EXAMPLE	Structure	¹H NMR	MS (ESI)
		(ddd, 1H), 7.29 (dd, 1H), 6.83 (d, 1H)	
47.		8.98 (br s, 1H), 8.83 (d, 1H), 8.45 (dd, 1H), 8.32 (d, 1H), 8.26 (dt, 1H), 8.26 (dt, 1H), 8.16 (dd, 1H), 8.10 (dt, 1H), 8.01 (dt, 1H), 7.64 (ddd, 1H), 7.32 (dd, 1H), 6.86 (d, 1H)	MS 358 (M+H) ⁺
48.		8.84 (d, 1H), 8.35 (dd, 1H), 8.32 (s, 1H), 8.31 (dd, 1H), 8.23 (dd, 1H), 8.15 (dd, 1H), 8.14 – 8.08 (m, 2H), 7.87 (dd, 1H), 7.64 (ddd, 1H), 7.27 (dd, 1H), 6.83 (d, 1H)	MS 358 (M+H) ⁺
49.		8.60 (s, 1H), 8.52-8.51 (d, 1H), 8.364-8.358 (t, 1H), 7.923-7.919 (t, 1H), 7.88-7.7.86 (m, 1H), 7.77-7.72 (m, 4H), 7.697-7.658 (m, 2H), 7.56- 7.53 (m, 2H), 7.50-7.47 (m, 1H).	MS 410.97 (M ⁺ +H).
50.		8.85 (s, 1H), 8.68-8.67 (d, 1H), 8.33-8.31 (dd, 1H), 8.27-8.55 (d, 1H), 8.17-78.00 (m, 7H), 7.54-7.46 (m, 3H), 7.31-7.30 (m, 1H).	MS 382.41 (M ⁺ +H).
51.		9.60 (d, 1H), 9.01 (d, 1H), 8.99 (d, 1H), 8.87 (d, 1H), 8.78 (m, 1H), 8.75 (d, 1H), 8.39 (d, 1H), 8.02 (d, 1H), 7.94 (dd, 1H), 7.50 (m, 2H).	MS 302.2 (M ⁺ +H).
52.		9.51 (d, 1H), 8.90 (d, 1H), 8.85 (d, 1H), 8.70 (dd, 1H), 8.36 (d, 1H), 7.92 (dd, 1H), 7.46 (m, 1H), 7.25 (dd, 1H), 7.19 (d, 1H), 6.91 (dd, 1H), 6.84 (d, 1H), 3.89 (s, 2H).	MS 316.5 (M ⁺ +H).

EXAMPLE	Structure	¹H NMR	MS (ESI)
53.		9.66 (d, 1H), 8.97 (s, 1H), 8.86 (d, 1H), 8.79 (m, 1H), 8.38 (d, 1H), 7.94 (dd, 1H), 7.87 (d, 1H), 7.78 (dd,	MS 326.4 (M ⁺ +H).
54.		1H), 7.63 (m, 2H), 7.47 (m, 1H). 9.51 (d, 1H), 8.79 (d, 1H), 8.74 (d, 1H), 8.68 (m, 1H), 8.49 (m, 2H), 8.36 (d, 1H), 8.03 (dd, 1H), 7.58 (m, 1H), 7.40 (d, 1H), 2.42 (s, 3H).	MS 316.0 (M ⁺ +H).
55.	O-CH ₃	9.06 (d, 1H), 9.00 (d, 1H), 8.79 (dd, 1H), 8.23 (dd, 1H), 8.09 (m, 2H), 7.70 (d, 1H), 7.64 (m, 2H), 7.58 (m, 1H), 7.53 (m, 1H), 4.07 (s, 3H).	MS 345.3 (M ⁺ +H).
56.	O-CH ₃	9.25 (d, 2H), 8.94 (s, broad, 1H), 8.70 (s, broad, 1H), 8.49 (m, 2H), 8.18 (s, 1H), 8.13 (d, 1H), 7.97 (s, broad, 1H), 7.91 (dd, 1H), 4.23 (s, 3H).	MS 331.9 (M ⁺ +H).
57.	O-CH ₃	ND	MS 346.3 (M ⁺ +H).
58.	N=N O-CH ₃	9.06 (m, 2H), 8.81-8.92 (m, 3H), 8.25 (m, 2H), 8.16 (d, 1H), 8.14 (s, 1H), 7.93 (d, 1H), 4.07 (s, 3H).	MS 374.3 (M ⁺ +H).
59.	N N N N N N N N N N N N N N N N N N N	8.86-8.92 (m, 2H), 8.39 (d, 1H), 7.91-8.08 (m, 4H), 7.69 (d, 1H), 7.43-7.51 (m, 2H), 4.05 (s, 3H).	MS 356.4 (M ⁺ +H).

EXAMPLE	Structure	¹H NMR	MS (ESI)
60.	CH, N	8.89 (m, 2H), 8.69 (d, 1H), 8.39 (d, 1H), 8.11 (d, 1H), 8.02 (d, 1H), 7.94 (dd, 1H), 7.73 (d, 1H), 7.48 (m, 1H), 4.08 (s, 3H).	MS 357.3 (M ⁺ +H).
61.	O-CH, N	8.90 (d, 1H), 8.39 (d, 1H), 7.89-8.00 (m, 4H), 7.79 (d, 1H), 7.66 (d, 1H), 7.56 (m, 1H), 7.49 (m, 2H), 3.96 (s, 3H).	MS 355.3 (M ⁺ +H).
62.	CN NEW SCH	8.88 (d, 1H), 8.38 (d, 1H), 8.00 (d, 1H), 7.92 (m, 2H), 7.73 (d, 2H), 7.69 (d, 2H), 7.49 (m, 2H), 3.98 (s, 3H).	MS 355.3 (M ⁺ +H).
63.	O-CH ₃	9.02 (d, 1H), 8.37 (d, 1H), 8.21 (d, 1H), 7.99 (d, 1H), 7.91 (m, 2H), 7.63 (m, 2H), 7.46 (m, 1H), 6.72 (m, 1H), 4.04 (s, 3H), 4.03 (s, 3H).	MS 361.1 (M ⁺ +H).
64.	N N CH ₃	8.95 (d, 1H), 8.88 (d, 1H), 8.68 (m, 1H), 8.41 (d, 1H), 8.33 (s, 1H), 8.20 (s, 1H), 8.01 (m, 1H), 7.95 (m, 1H), 7.56 (s, 1H), 7.45 (m, 2H), 2.59 (s, 3H).	MS 315.4 (M ⁺ +H).
65.	O-CH ₃	8.88 (d, 1H), 8.78 (d, 1H), 8.41 (d, 1H), 8.32 (s, 1H), 7.96 (m, 2H), 7.82 (m, 1H), 7.50 (m, 1H), 7.34 (m, 2H), 3.95 (s, 3H).	MS 411.0 (M ⁺ +H+2)
66.	H ₃ C N N O CH ₃	8.92-8.94 (m, 1H), 8.77-8.79 (m, 1H), 8.38-8.40 (m, 1H), 8.11-8.16 (m, 3H), 8.02-8.04 (m, 1H), 7.62 (s, 1H)	MS 334.3 (M ⁺ +H).
67.	H ₃ C CH ₃	8.8 (d, 1H), 8.18-8.20 (m, 1H), 8.09- 8.10 (m, 1H), 8.05 (d, 1H), 7.97 (d, 1H), 7.92 (m, 1H0, 7.90 (s, 1H)	MS 334.2 (M ⁺ +H).

EXAMPLE	Structure	¹H NMR	MS (ESI)
68.		8.81-8.91 (m, 1H), 8.82-8.83 (m, 1H), 8.69-8.70 (d, 1H), 8.56-8.58 (m, 1H), 8.5-8.52 (d, 1H), 8.45-8.48 (dd, 1H), 8.22-8.4 (m, 3H), 8.29	MS 394.3 (M ⁺ +H).
		(dd, 11), 6.22-6.4 (m, 511), 6.25 (ddd, 1H), 8.20 (m, 1H), 7.88-8.03 (m, 2H), 7.78-7.80 (m, 1H)	
69.	The state of the s	9.18 (m, 1H), 8.6 (s, 1H), 8.49 (ddd, 1H), 8.38 (m, 2H), 8.22 (m, 1H), 7.87 (m, 2H), 7.57 (m, 2H), 7.50 (m, 1H)	MS 343 (M ⁺ +H).
70.		8.82-8.83 (m, 1H0, 8.79 (m, 1H), 8.25-8.34 (m, 5H), 8.08 (ddd, 1H), 7.92 (dd, 1H), 7.64 (dd, 1H)	MS 291 (M ⁺ +H).
71.		8.88 (s, 1H), 8.81-8.79 (d, 1H), 8.71-8.68 (m, 1H), 8.46-8.45 (m, 1H), 8.34-8.28 (m, 2H), 8.24-8.19 (m, 1H), 8.14-8.11 (d, 1H), 7.83-7.79 (m, 1H), 7.71-7.67 (m, 1H), 2.67 (s, 3H)	MS 349.1 (M ⁺ +H).
72.		8.76-8.72 (m, 1H), 8.45-8.42 (m, 1H), 8.41-8.38 (m, 1H), 8.28-8.25 (d, 1H), 8.07-8.02 (m, 1H), 7.84-7.81 (m, 1H), 7.73-7.68 (m, 2H), 7.61-7.59 (d, 1H), 7.56-7.51 (m, 2H)	MS 359.0 (M ⁺ +H).
73.		9.39 (s, 1H), 8.80-8.81 (d, 1H), 8.73-8.74 (d, 1H), 8.57 (s, 1H), 8.44-8.45 (d, 1H) 8.35-8.37 (d, 1H), 8.25-8.30 (m, 2H), 8.04-8.09 (m, 2H), 7.97-8.00 (dd, 1H), 7.61-7.63 (dd, 1H), 7.26 (d, 1H).	MS 340 (M ⁺ +H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
74.	N N N P F	9.50 (s, 1H), 8.82-8.83 (m, 1H), 8.75-8.76 (d, 1H), 8.48 (m, 2H), 8.27-8.34 (m, 3H), 8.09-8.14 (m, 2H), 7.64-7.66 (dd, 1H), 7.29-7.30 (d, 1H).	MS 359 (M ⁺ +H)
75.		ND	MS 341 (M ⁺ +H)
76.		ND	MS 370 (M ⁺ +H)
77.	N N N N N N N N N N N N N N N N N N N	8.92 – 8.93 (m, 1H), 8.80 – 8.82 (m, 1H), 8.75 – 8.77 (m, 1H), 8.23 – 8.34 (m, 3H), 8.14 – 8.17 (m, 1H), 8.07 (ddd, 1H, J = 10.0, 10.0, 2.4 Hz), 7.97 (ddd, 1H, J = 10.4, 10.4, 2.4 Hz), 7.82 (dd, 1H, J = 10.8, 10.8 Hz), 7.62 (ddd, 1H, J = 10.0, 6.4, 1.2), 7.44 – 7.48 (m, 1H).	MS 301 (M ⁺ +H)
78.		9.40-9.42 (d, 1H), 9.15-9.16 (d, 1H), 8.92-8.93 (d, 1H), 8.67-8.68 (d, 1H), 8.57-8.60 (m, 1H), 8.49-8.54 (m, 2H), 8.27-8.29 (d, 1H), 8.21-8.24 (dd, 1H), 8.15-8.18 (1H), 8.01-8.04 (t, 1H), 7.93-8.00 (m, 2H).	MS 351 (M ⁺ +H)
79.	N N P F	8.99 (m, 1H), 8.81-8.30 (d, 1H), 8.69-8.72 (m, 1H), 8.37-8.39 (dd, 1H), 8.27 (s, 1H), 8.13-8.15 (m, 1H), 7.89-7.91 (d, 1H), 7.74-7.89 (m, 2H), 7.64-7.70 (m, 2H), 7.52-7.53 (d, 1H).	MS 368 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
80.		8.82-8.83 (d, 1H), 8.30-8.31 (d, 1H),	MS 316
i	NH ₂	8.19-8.21 (m, 2H), 8.06-8.08 (m,	(M ⁺ +H)
	N N N	3H), 7.79-7.83 (m, 1H), 7.67-7.68	
	N=N	(d, 1H), 7.58-7.61 (m, 1H), 6.70-	
		6.71 (d, 1H), 6.02 (s, 2H).	
81.		8.87-8.88 (m, 1H), 8.38-8.41 (m,	MS 316
	NH ₂	2H), 8.32-8.33 (m, 1H), 8.16-8.17	(M ⁺ +H)
	N N	(dd, 1H), 7.93-7.95 (m, 1H), 7.68-	
	N—N	7.71 (m, 2H), 7.47-7.50 (m, 1H),	
		6.82-6.85 (dd, 1H), 4.64 (s, 2H).	
82.		8.95-8.97 (m, 1H), 8.75-8.78 (m,	MS 325
		1H), 8.60-8.63 (m, 1H), 8.52 (m,	(M ⁺ +H)
-	N N N	1H), 8.43 (m, 1H), 8.07 (m, 1H),	
	,P	7.95-7.97 (d, 1H), 7.88-7.90 (m,	
		2H), 7.83-7.86 (m, 1H), 7.76-7.77	
		(d, 1H), 7.66-7.96 (dd, 1H).	
83.		8.85-8.86 (d, 1H), 8.33-8.34 (d, 1H),	MS 344
		8.26-8.28 (m, 1H), 8.23-8.26 (m,	(M ⁺ +H)
	N N=N	1H), 8.10-8.14 m, 1H), 8.08-8.10 (d,	·
	F	1H), 7.85-7.92 (m, 3H), 7.74-7.76	
		(dd, 1H), 7.66-7.68 (m, 1H).	
84.	_\\\	9.38 (s, 1H), 8.92-8.93 (d, 1H), 8.86-	MS 319
		8.88 (m, 1H), 8.83-8.84 (d, 1H),	(M ⁺ +H)
	N	8.52 (s, 1H), 8.32-8.33 (d, 1H), 8.21-	
	F	8.23 (m, 1H), 8.09-8.13 (m, 2H),	
·		8.03-8.06 (m, 1H), 7.64-7.66 (m,	
0.5		1H).	MC 222
85.		8.82-8.83 (m, 1H), 8.30-8.32 (d,	MS 333
	NH ₂		(M ⁺ +H)
	N=N-	(d, 1H), 7.61-7.65 (m, 3H), 7.53-	
	F	7.57 (m, 3H), 7.40-7.42 (m, 1H).	
		<u> </u>	L

EXAMPLE	Structure	¹ H NMR	MS (ESI)
86.	N	8.86-8.88 (m, 1H), 8.51-8.53 (dd,	MS 354
		1H). 8.38-8.39 (d, 1H), 8.22 (s, 1H),	(M^++H)
	N N N	8.12-8.14 (m, 1H), 7.92-7.96 (m,	
	N=N F	1H), 7.78-7.81 (dd, 1H), 7.47-7.50	
		(m, 1H), 7.39-7.43 (m, 2H).	
87.	F	8.87-8.88 (d, 1H), 8.35-8.40 (m,	MS 396
		3H), 7.92-7.95 (m, 1H), 7.67-7.70	(M^++H)
	Br	(m, 2H), 7.58-7.60 (d, 1H)7.46-7.49	
	N=N	(dd, 1H), 7.16-7.19 (dd, 1H), 7.02-	
		7.06 (m, 1H).	
88.	()	8.87-8.88 (m, 1H), 8.39-8.40 (d,	MS 361
		1H), 8.24-8.25 (d, 1H), 8.09 (s, 1H),	(M^++H)
	H ₃ C	7.93-7.94 (m, 1H), 7.82-7.83 (m,	*
	N=N O	1H), 7.73-7.75 (dd, 1H), 7.44-7.48	
	н₃с′	(m, 1H), 7.30 (s, 1H), 7.03-7.05 (dd,	
		1H).	
89.		8.82-8.83 (m, 1H), 8.42 (s, 1H),	MS 343
		8.36-8.37 (m, 1H), 8.29-8.31 (m,	(M ⁺ +H)
	N N N N	1H), 8.15-8.17 (m, 1H), 8.08-8.09	
	N=N	(m, 1H), 7.90-7.91 (m, 2H), 7.75-	
		7.78 (m, 1H), 7.57-7.58 (m, 1H),	
		7.34-7.35 (m, 1H).	150.004
90.		8.89-8.91 (m, 1H), 8.60-8.62 (m,	MS 334
	NH ₂	i e	(M ⁺ +H)
	N=N	8.11-8.12 (d, 1H), 7.93-7.96 (d, 1H),	
	F	7.88-7.90 (m, 1H), 7.80-7.83 (m,	
01		2H). 8.82-8.83 (d, 1H), 8.72-8.73 (d, 1H),	MS 333
91.	H ₃ C-	8.33 (s, 1H), 8.30-8.32 (d, 1H), 8.24-	(M ⁺ +H)
		8.26 (d, 1H), 8.21-8.23 (d, 1H),	(141 111)
	N N=N	8.08-8.11 (m, 1H), 7.86-7.88 (d,	
	F	1H), 7.73-7.76 (dd, 1H), 7.63-7.65	
		(dd, 1H), 2.51 (s, 3H).	
	L	(44, 111), 2.31 (3, 311).	L

EXAMPLE	Structure	¹ H NMR	MS (ESI)
92.	F	8.92-8.93 (d, 1H), 8.62-8.64 (d, 1H),	MS 361
<u> </u>		8.39-8.43 (m, 2H), 7.89-7.96 (m,	(M^++H)
	N N N	2H), 7.77-7.79 (m, 1H), 7.65-7.67	
	N=N F	(d, 1H), 7.56-7.60 (m, 1H).	
93.	N	13. 84 (m, 1H), 8.82-8.83 (d, 1H),	MS 334
	NH.	8.30-8.31 (d, 1H), 8.19-8.21 (d, 1H),	(M ⁺ +H)
	N N N N N N N N N N N N N N N N N N N	8.17 (s, 1H), 8.12-8.14 (d, 1H), 8.08-	(
	N=N F	8.10 (m, 1H), 8.04-8.06 (m, 2H),	
		7.69-7.71 (d, 1H), 7.63-7.65 (m,	
		1H), 7.04-7.07 (dd, 1H).	
94.		13. 84 (m, 1H), 8.82 (s, 1H), 8.53	MS 334
	NH,	(m, 1H), 8.30-8.34 (m, 2H), 8.20-	(M ⁺ +H)
]	N N N N	8.21 (m, 2H), 8.08-8.13 (m, 2H),	
	N=N F	7.63-7.69 (m, 2H), 7.57 (m, 1H),	
		7.03-7.05 (d, 1H).	
95.		9.02 (s, 1H), 8.92-8.93 (d, 1H), 8.81-	MS 333
	CH,	8.82 (d, 1H), 8.26-8.30 (m, 2H),	(M ⁺ +H)
	N N	8.20 (m, 1H), 8.08-8.11 (m, 2H),	
	N=N F	7.81-7.83 (dd, 1H), 7.63-7.65 (dd,	
		1H), 2.48 (s, 3H).	
96.		8.94 (s, 1H), 8.86-8.87 (d, 1H), 8.82-	MS 333
	CH,	8.83 (d, 1H), 8.30-8.31 (d, 1H),	(M ⁺ +H)
	N N N	8.24-8.26 (m, 2H), 8.08-8.11 (m,	
	F	1H), 8.05-8.07 (d, 1H), 7.80-7.82	
		(m, 1H), 7.63-7.66 (dd, 1H), 2.58 (s,	
		3H).	
97.		9.00-9.02 (m, 1H), 8.83-8.84 (m,	MS 344
Į		2H), 8.70-8.73 (m, 1H), 8.46 (s, 1H),	(M ⁺ +H)
	N N N	8.29-8.31 (d, 1H), 8.23-8.24 (d, 1H),	
	F	8.14-8.16 (m, 1H), 7.85-7.88 (dd,	}
		1H), 7.79-7.81 (d, 1H), 7.64-7.68	
	<u> </u>	(m, 1H), 7.56-7.59 (m, 1H).	L

EXAMPLE	Structure	¹ H NMR	MS (ESI)
98.	N	9.38 (s, 1H), 8.96-8.97 (d, 1H), 8.86-	MS 308
		8.88 (d, 1H), 8.55 (s, 1H), 8.19-8.22	(M^++H)
	N N N	(m, 2H), 8.07-8.09 (dd, 1H), 7.86 (s,	
·	N=N F	2H).	
99.		8.87-8.88 (d, 1H), 8.81-8.82 (d, 1H),	MS 333
	CH,	8.55- 8.57 (d, 1H), 8.29-8.30 (d,	(M ⁺ +H)
·	N=N	1H), 8.23-8.25 (m, 2H), 8.08-8.11	
	F	(m, 1H), 8.00-8.03 (m, 1H), 7.78- 7.80 (d, 1H), 7.63-7.65 (dd, 1H),	
		2.77 (s, 3H).	
100.	1	8.88 (s, 1H), 8.83-8.84 (d, 1H), 8.16-	MS 322
	CH,	9 10 (m 2H) 7 00 9 01 (d 1H)	(M ⁺ +H)
	N N N N N N N N N N N N N N N N N N N	7.82-7.84 (d, 1H), 7.65 (s, 2H), 2.55	
	N=N F	(s, 3H).	
101.	N—CH,	9.19-9.21 (m, 1H), 8.79-8.81 (m,	MS 333
	Q X	2H), 8.76 (s, 1H), 8.50 (m, 1H),	(M ⁺ +H)
	N N=N	8.29-8.31 (d, 1H), 8.18-8.19 (d, 1H),	
	r	8.07-8.09 (m, 2H), 7.58-7.62 (m,	
	CH ₃	3H), 7.54-7.56 (m, 1H), 2.54 (s, 3H).	1.50.000
102.		9.29 (s, 1H), 8.90-8.91 (d, 1H), 8.79-	MS 333 (M ⁺ +H)
		8.81 (m, 1H), 8.51 (s, 1H), 8.29-8.31 (d, 1H), 8.18-8.20(, d, 1H), 8.09-	(IVI TII)
<u> </u>	N N N	8.11 (m, 2H), 8.01-8.03 (d, 1H),	
	N=N F	7.53-7.62 (m, 4H), 2.80 (s, 3H).	
103.	CH.	8.82-8.83 (d, 1H), 8.78 (s, 1H), 8.65	MS 333
		(m, 1H), 8.31-8.33 (d, 1H), 8.19-	(M ⁺ +H)
		8.22 (m, 2H), 8.08-8.14 (m, 2H),	
	N=N	7.92-7.94 (dd, 1H), 7.60-7.66 (m,	
		1H).	

EXAMPLE	Structure	¹ H NMR	MS (ESI)
104.	NH _N	9.41-9.42 (d, 1H), 8.71 (d, 1H), 8.36 (s, 2H), 8.24 (s, 2H), 7.87 (s, 1H), 7.09-7.10 (d, 1H).	MS 323 (M ⁺ +H)
105.	NH ₂	8.34 (s, 1H), 8.24-8.26(d, 1H), 8.17-8.19 (d, 1H), 8.14 (s, 1H), 7.85 (s, 2H), 7.75-7.76 (m, 1H), 7.65 (s, 1H), 7.18-7.20 (d, 1H).	MS 356 (M ⁺ +H)
106.	N=N H ₃ C-O	8.92-8.97 (m, 1H), 8.79-8.80 (d, 1H), 8.64-8.67 (dd, 1H), 8.09-8.11 (m, 1H), 7.90-7.92 (m, 2H), 7.47-7.49 (d, 1H), 7.38-7.41 (m, 1H), 7.23-7.25 (m, 1H), 7.09-7.10 (d, 1H), 7.02-7.05 (m, 1H), 3.94 (s, 3H), 3.80 (s, 3H).	MS 360 (M ⁺ +H)
107.	O-CH ₈	8.98-9.00 (m, 1H), 8.72-8.74 (d, 1H), 8.53-8.56 (m, 1H), 7.98-8.05 (m, 3H), 7.86-7.87 (d, 1H), 7.78-7.82 (m, 1H), 7.56-7.63 (m, 3H), 4.03 (s, 3H).	MS 355 (M ⁺ +H)
108.		ND	MS 335.2 (M ⁺ +H).
109.		8.73-8.71 (m, 2H), 8.31-8.2 (m, 3H), 8.0 (dt, 1H), 7.78 (dt, 1H), 7.58 (d, 1H), 7.5-7.43 (m, 2H), 7.3-7.27 (m, 1H), 2.5 (s, 3H).	MS 315.4 (M ⁺ +H).

EXAMPLE	Structure	¹ H NMR	MS (ESI)
110.		8.7 (br s, 2H), 8.28 (d, 1H), 8.10-8.0 (m, 2H), 7.9-7.8 (m, 2H), 7.8 (d, 1H), 7.75 (t, 1H), 7.52-7.48 (m, 1H), 7.3-7.2 (m, 1H), 4.1 (s, 3H).	MS 331.3 (M ⁺ +H).
111.		ND	MS 331.8 (M ⁺ +H).
112.		9.14-9.13 (d, 1H) 8.79-8.76 (d, 1H), 8.56-8.52 (m, 3H), 8.34-8.33 (d, 1H), 8.22-8.20 (d, 1H), 8.04-8.01 (t, 1H), 7.69-7.68 (d, 1H)7.60-7.57 (m, 2H), 7.02-7.01 (d, 1H), 4.14 (s, 3H).	MS 370.1 (M ⁺ +H).
113.		9.00-8.99 (d, 1H), 8.84-8.83 (d, 1H), 8.75-8.72 (t, 1H), 8.28-8.27 (d, 1H), 8.17-8.15 9t, 1H), 8.09 (s, 1H), 8.02-7.96 (m, 2H), 7.79 (s, 1H), 6.57-6.56 (t, 1H), 4.10 (s, 3H).	MS 320.3 (M ⁺ +H).
114.		9.049.07(m, 2H), 8.82-8.87 (m, 2H), 8.74-8.77 (m, 1H), 8.45-8.48 (m, 3H), 8.17-8.26 (m, 3H).	MS 319.9 (M ⁺ +H)
115.		8.81-8.83 (m, 2H), 8.73-8.74 (d, 1H), 8.58-8.61 (dd, J=6, 6, 1H), 8.31-8.33, J=6, 1H), 8.23-8.25 (d, J=6. 1H), 8.07-8.09 (m, 2H), 8.02-8.00 (d, J=6, 1H), 7.63-7.65 (t, 1H), 7.57-7.59 (t, 1H).	MS 326.2 (M ⁺ +H)
116.	F F F N N N N N N N N N N N N N N N N N	8.85 (s, 1H), 8.76-8.77 (d, J=3, 1H), 8.56-8.60 (m, 2H), 8.33-8.35 (d, J=6, 1H), 8.05-8.12 (m, 2H), 7.94- 7.96 (d, J=6, 1H), 7.69-7.71 (d, J=6,	MS 369.2 (M ⁺ +H)

EXAMPLE Structure 1H NMR 1H), 7.64-7.66 (m, 1H), 7.58-7.60 (m, 1H). 117. 8.86-8.87 (d, J=3, 1H), 8.77-8.78 J=3, 1H), 8.38-8.40 (d,J=6, 1H), 8.34 (s, 1H), 8.12-8.14 (d, J=6, 1H), 7.92-7.94 (t, 1H), 7.81-7.84 (m, 1H)	(d, MS 385.1 (M ⁺ +H)
117. 8.86-8.87 (d, J=3, 1H), 8.77-8.78 J=3, 1H), 8.38-8.40 (d, J=6, 1H), 8.34 (s, 1H), 8.12-8.14 (d, J=6, 1H)	(M ⁺ +H)
J=3, 1H), 8.38-8.40 (d,J=6, 1H), 8.34 (s, 1H), 8.12-8.14 (d, J=6, 1)	(M+H)
8.34 (s, 1H), 8.12-8.14 (d, J=6, 1)	
	H),
702704/+ 111 701704/ 1	
/ /.52-7.54 (i, 111), 7.61-7.64 (iii, 1	.H),
7.77-7.79 (d, J=6, 1H), 7.48-7.50	(t,
1H), 7.35-7.37 (t, 1H).	
118. ND	MS 346
l N	(M+H)
N-N N-N	
N=//	
0-1,	
119. ND	MS 370
	(M+H)
	(IVITI)
N-N CI	
N CI	

EXAMPLE	Structure	¹H NMR	MS (ESI)
120.		ND	MS 370 (M+H)
121.	N N N N N N N N N N N N N N N N N N N	ND	MS 385 (M+H)
122.	N N N F F F	ND	MS 369 (M+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
123.		ND	MS 331 (M+H)
124.	OH NON NON NON NON NON NON NON NON NON N	ND	MS 315 (M+H)
125.	N CH ₃	ND	MS 315 (M+H)
126.	N H ₃ C	ND	MS 343 (M+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
127.		ND	MS 319 (M+H)
128.		ND	MS 337 (M+H)
129.	N N N N N N N N N N N N N N N N N N N	ND	MS 316 (M+H)
130.	N N OH	ND .	MS 317 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
131.	Z Z Z Z	ND	MS 319 (M+H)
132.		ND	MS 326 (M+H)
133.	N-N H ₃ C	ND	MS 329 (M+H)
134.	N H ₃ C CH ₃	ND	MS 329 (M+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
135.	N N CH ₃	ND .	MS 329 (M+H)
136.	N-N N-N CH ₃	ND	MS 331 (M+H)
137.	N-N F	ND	MS 337 (M+H)
138.	N-N H ₂ N-O	ND	MS 344 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
139.	H ₃ C-	ND .	MS 314 (M++H)
140.		ND	MS 318 (M ⁺ +H)
141.		ND .	MS 318 (M ⁺ +H)
142.	H ₃ C-	ND	MS 332 (M ⁺ +H)
143.		ND	MS 336 (M ⁺ +H)
144.	CH ₃	ND	MS 376 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
145.	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	ND	MS 319 (M⁺+H)
146.	N N N N CH ₃	ND	MS 332 (M⁺+H)
147.	N CI CI	ND	MS 387 (M⁺+H)
148.	N N N N N N N N N N N N N N N N N N N	ND	MS 343 (M⁺+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
149.	N P F	ND	MS 354 (M++H)
150.	N N N CI	ND	MS 352 (M ⁺ +H)
151.	N CH ₃	ND	MS 378 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
152.	N H ₃ C	ND	MS 346 (M⁺+H)
153.		ND	MS 352 (M⁺+H)
154.	N H ₃ C O	ND	MS 360 (M+H)
155.	N H ₃ C CH ₃	ND	MS 346 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
156.	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	ND	MS 346 (M⁺+H)
157.	N N CI	ND	MS 352 (M ⁺ +H)
158.	N N HO	ND	MS 334 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
159.	N H ₃ C CH ₃	ND .	MS 346 (M*+H)
160.	N-N O-CH ₃	ND	MS 348 (M ⁺ +H)
161.	N N N F	ND	MS 336 (M ⁺ +H)
162.	N N N N N N N N N N N N N N N N N N N	ND	MS 361 (M⁺+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
163.		ND	MS 363 (M++H)
	N-N N-O		
164.		ND	MS 387 (M*+H)
	N N CI		
165.	N N	ND	MS 348 (M ⁺ +H)
	N N N O CH ₃		

EXAMPLE	Structure	¹ H NMR	MS (ESI)
166.		ND	MS 361 (M++H)
	N-N CH ₃		
167.		ND	MS 354 (M⁺+H)
	N-N F		
168.	N N	ND	MS 336 (M⁺+H)
	N-N F		
169.	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	ND	MS 362 (M++H)
	F		·

(2)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
170.	N CC	ND	MS 334 (M ⁺ +H)
171.		ND	MS 328 (M ⁺ +H)
172.	N-N ONTO	ND .	MS 345 (M⁺+H)
173.	N-N N-N CH ₃	ND	MS 314 (M⁺+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
174.	N CH ₃	ND	MS 314 (M ⁺ +H)
175.	N H ₃ C	NID	MS 342 (M⁺+H)
176.	N N CI	ND	MS 334 (M⁺+H)
177.	N-N F	ND	MS 318 (M⁺+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
178.	CI CI	ND	MS 369 (M++H)
179.	N F F	ND	MS 336 (M ⁺ +H)
180.	N CI CI	ND	MS 369 (M⁺+H)
181.	N-N OH	ND	MS 316 (M⁺+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
182.	N H ₃ C CH ₃	ND	MS 328 (M⁺+H)
183.	N H ₃ C CH ₃	ND	MS 328 (M ⁺ +H)
184.	N-N N-N CH ₃	ND	MS 328 (M++H)
185.	N N F	ND	MS 336 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
186.	N H ₃ C	ND	MS 342 (M++H)
187.	N H ₂ N	ND	MS 343 (M++H)
188.	N-N O-CH ₃	ND	MS 330 (M ⁺ +H)
189.	N N HO	ND .	MS 316 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
190.	N N N N N N N N N N N N N N N N N N N	ND .	MS 318 (M ⁺ +H)
191.		ND	MS 325 (M ⁺ +H)
192.	N N N CH ₃	ND	MS 330 (M ⁺ +H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
193.	F H ₃ C	ND	MS 362 (M ⁺ +H)
194.	CH ₃	ND	MS 362 (M⁺+H)
195.	N N N N CH ₃	ND	MS 364 (M⁺+H)
196.	N N N N CH ₃	ND	MS 375 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
197.	2-2-2-2	ND .	MS 376 (M⁺+H)
	F O H ₃ C		
198.	N N N N N N N N N N N N N N N N N N N	ND .	MS 408 (M ⁺ +H)
199.	N N N N N N N N N N N N N N N N N N N	ND	MS 410 (M ⁺ +H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
200.		ND	MS 386 (M++H)
201.	N N N N N N N N N N N N N N N N N N N	ND	MS 320 (M ⁺ +H)
202.	N N N CH ₃	ND	MS 350 (M*+H)
203.		ND	MS 384 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
204.	N N N N N N N N N N N N N N N N N N N	ND	MS 384 (M ⁺ +H)
205.	N F F	ND	MS 354 (M ⁺ +H)
206.	N N N N N N N N N N N N N N N N N N N	ND	MS 348 (M⁺+H)
207.	N-N OCH ₃	ND	MS 344 (M⁺+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
208.		ND	MS 346 (M++H)
	N-N SCH ₃		
209.	N N N N CH ₃	ND	MS 357 (M ⁺ +H)
210.	N N N N N N N N N N N N N N N N N N N	ND	MS 357 (M⁺+H)
	H ₃ C		

EXAMPLE	Structure	¹ H NMR	MS (ESI)
211.	H ₃ C	ND	MS 358 (M ⁺ +H)
212.	N N CI	ND	MS 369 (M ⁺ +H)
213.	N N N N N N N N N N N N N N N N N N N	ND	MS 384 (M++H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
214.		ND	MS 392 (M ⁺ +H)
215.	O=CH _s	ND .	MS 393 (M ⁺ +H)
216.	N N N N N N N N N N N N N N N N N N N	ND	MS 363 (M ⁺ +H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
217.		ND	MS 345 (M+H)
218.	0-N	ND	MS 351 (M ⁺ +H)
	N-N N-N		
219.	N N CH ₃	ND	MS 332 (M⁺+H)
220.	N-N	ND	MS 368 (M⁺+H)
	F F		

EXAMPLE	Structure	¹ H NMR	MS (ESI)
221.	N N N N CH ₃	ND	MS 331 (M*+H)
222.	H ₃ C	ND	MS 344 (M++H)
223.	N N N N N N N N N N N N N N N N N N N	ND	MS 348 (M ⁺ +H)
224.	N N N N OCH,	ND	MS 360 (M⁺+H)
225.	N H _g C H _g C	ND	MS 388 (M⁺+H)
226.	H _a C	ND	MS 331 (M⁺+H)
227.	CI NNNN H _S C	ND	MS 364 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
228.	N N N N N N N N N N N N N N N N N N N	ND	MS 358 (M⁺+H)
229.	о-сн ₃	ND	MS 360 (M⁺+H)
230.	CH ₃	ND	MS 344 (M⁺+H)
231.	N N N N N N N N N N N N N N N N N N N	ND	MS 380 (M++H)
232.	H ₃ C	ND	MS 372 (M⁺+H)
233.	N N N N N N N N N N N N N N N N N N N	ND	MS 348 (M++H)
234.	H ₃ C	ND	MS 366 (M ⁺ +H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
235.	H ₉ C	ND	MS 346 (M ⁺ +H)
236.	N N N H ₃ C	ND	MS 348 (M⁺+H)
237.	H ₃ C CH ₃	ND	MS 358 (M⁺+H)
238.	N N N H ₃ C	ND	MS 366 (M++H)
239.	H ₃ C	ND	MS 372 (M⁺+H)
240.	H ₂ N-O	ND	MS 373 (M⁺+H)
241.	H ₃ C CH ₃	ND	MS 360 (M++H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
242.	H ₃ C	ND	MS 331 (M⁺+H)
243.	H,C CH,	ND	MS 374 (M⁺+H)
244.	N N N N N N N N N N N N N N N N N N N	ND	MS 381 (M++H)
245.	H ₃ C N-CH ₃	ND .	MS 387 (M ⁺ +H)
246.	H _s C CI	ND	MS 399 (M++H)
247.	CI NNNN CI	ND	MS 399 (M++H)
248.	H ₃ C	ND	MS 332 (M⁺+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
249.	H ₀ C	ND	MS 396 (M⁺+H)
250.	F F F O-CH ₃	ND	MS 398 (M⁺+H)
251.	N N OH	ND	MS 360 (M⁺+H)

Examples 252-281 have mGluR5 inhibitory activity greater than 1 μM in the calcium flux assay:

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EXAMPLE	Structure	¹H NMR	MS (ESI)
252.		ND	MS 345
	N		(M+H)
	N-N		
		·	
	N=\ \=\		
	CH	ls	

EXAMPLE	Structure	¹ H NMR	MS (ESI)
257.	N-N-CH ₃	ND	MS 358 (M+H)
258.	N N CH ₃	ND	MS 358 (M+H)
259.	N N N N N N N N N N N N N N N N N N N	ND	MS 358 (M+H)
260.	N N N N N N N N N N N N N N N N N N N	ND	MS 359 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
253.	N	ND	MS 345 (M+H)
	N-N N-N		
	H ₃ C	-	
254.		ND	MS 345 (M+H)
	N-N OCH ₃		
255.	N N N N N N N N N N N N N N N N N N N	ND	MS 347 (M+H)
	N= SCH ₃		
256.	N N	ND ·	MS 352 (M+H)
	N-N		

EXAMPLE	Structure	¹ H NMR	MS (ESI)
261.		ND	MS 370 (M+H)
262.		ND	MS 377 (M+H)
263.		ND	MS 391 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
264.	N N N N N N N N N N N N N N N N N N N	ND	MS 391 (M+H)
265.		ND	MS 393 (M+H)
266.	N Z CH ₃	ND	MS 394 (M+H)

EXAMPLE	Structure	¹H NMR	MS (ESI)
267.		ND	MS 407 (M+H)
268.		ND	MS 439 (M+H)
269.		ND	MS 369 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
274.	N N N N N N N N N N N N N N N N N N N	ND	MS 385 (M+H)
275.	N CH ₃	ND	MS 332 (M+H)
276.	N CI CI	ND	MS 370 (M+H)
277.	N N N CH ₃	ND	MS 361 (M+H)
278.	N H ₃ C	ND	MS 315 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
270.		ND	MS 357 (M+H)
271.		ND .	MS 367 (M+H)
272.	N-N N	ND	MS 367 (M+H)
273.	N N CH ₃	ND	MS 359 (M+H)

EXAMPLE	Structure	¹ H NMR	MS (ESI)
279.	N N H ₃ C CH ₃	ND	MS 329 (M+H)
280.	N N CH ₃		MS 344 (M+H)
281.	N N N N N N N N N N N N N N N N N N N	ND	MS 345 (M+H)

Examples 282-347 have mGluR5 inhibitory activity greater than 3 μM in the calcium flux assay:

EXA	Structure	¹H NMR	MS (ESI)
MPLE			
282.	0-сн,	ND	MS 330
			(M+H)
	N / N		
	N=N-		
			L

EXA MPLE	Structure	¹H NMR	MS (ESI)
283.	N CH ₃	ND	MS 358 (M+H)
284.	O-CH ₃	ND	MS 348 (M+H)
285.	N N CH ₃	ND	MS 332 (M+H)
286.	N N N N N N N N N N N N N N N N N N N	ND	MS 368 (M+H)

EXA MPLE	Structure	¹H NMR	MS (ESI)
287.	N CH ₃ CH ₃ CH ₃	ND	MS 378 (M+H)
288.	N N OH	ND	MS 334 (M+H)
289.	N N N CH ₃	ND	MS 346 (M+H)
290.		ND	MS 334 (M+H)

EXA MPLE	Structure	¹H NMR	MS (ESI)
291.	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	ND	MS 350 (M+H)
292.	N N CH ₃	ND	MS 360 (M+H)
293.	N CH ₃ CH ₃	ND	MS 360 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
294.	N-N H ₃ C	ND	MS 328 (M+H)
295.	N-N CH ₃	ND	MS 343 (M+H)
296.		ND	MS 344 (M+H)
297.	N N N N O CH	ND	MS 362 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
298.	N N N CI	ND	MS 387 (M+H)
299.		ND	MS 387 (M+H)
300.		ND	MS 394 (M+H)

EXA MPLE	Structure	¹H NMR	MS (ESI)
301.	N N N N N N N N N N N N N N N N N N N	ND	MS 402 (M+H)
302.	N N N N N N N N N N N N N N N N N N N	ND	MS 408 (M+H)
303.	N N N N N N N N N N N N N N N N N N N	ND	MS 411 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
304.	N N N N N N N N N N N N N N N N N N N	ND	MS 424 (M+H)
305.	F F F	ND	MS 386 (M+H)
306.	N-N N-N CH	ND	MS 376 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
307.	N-N N-N F	ND	MS 402 (M+H)
308.	N N CH ₃	ND	MS 349 (M+H)
309.	N N N CH _s	ND	MS 344 (M+H)
310.	H ₃ C	ND	MS 344 (M+H)

EXA MPLE	Structure	¹H NMR	MS (ESI)
311.	N N N CH S	ND .	MS 357 (M+H)
312.	N N CI	ND	MS 369 (M+H)
313.		ND	MS 376 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
314.		ND	MS 390 (M+H)
315.		ND	MS 390 (M+H)
316.	H ₂ C	ND	MS 364 (M+H)
317.	H ₃ C	ND	MS 375 (M+H)
318.	H ₃ C CH ₃	ND	MS 344 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
319.	H ₃ C	ND	MS 364 (M+H)
320.	CI CI CI	ND	MS 399 (M+H)
321.	H ₃ C CH ₃	ND	MS 390 (M+H)
322.	CH ₃ CH ₃ CH ₃	ND	MS 390 (M+H)
323.	H ₃ C OH	ND	MS 346 (M+H)
324.	H ₃ C OH ₃ C	ND	MS 358 (M+H)
325.	H ₃ C H ₃ C CH	ND .	MS 358 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
326.	H ₃ C CH ₃	ND	MS 358 (M+H)
327.	N N N N N N N N N N N N N N N N N N N	ND	MS 374 (M+H) _.
328.	H ₂ C CH ₃	ND	MS 387 (M+H)
329.	H ₂ C CH ₃	ND	MS 387 (M+H)
330.	NNN OCH H ₃ C	ND .	MS 388 (M+H)
331.	N N N Col	ND	MS 399 (M+H)
332.	N N N CH ₃	ND	MS 406 (M+H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
333.	H ₃ C FF	ND	MS 414 (M+H)
334.	H ₂ C'	ND	MS 420 (M+H)
335.	N N N N N N N N N N N N N N N N N N N	ND	MS 420 (M+H)
336.	H _a C	ND	MS 422 (M+H)
337.	H,C N-B-CH	ND	MS 423 (M+H)
338.	H ₃ C	ND	MS 436 (M+H)

EXA MPLE	Structure	¹H NMR	MS (ESI)
339.	N N N S S	ND	MS 468 (M+H)
340.	O-CH ₃	ND	MS 398 (M+H)
341.	H ₉ C N	ND	MS 396 (M+H)
342.	H ₂ C OH,	ND	MS 388 (M+H)
343.	H ₃ CO F	ND	MS 414 (M+H)
344.	H,C CH ₂	ND	MS 361 (M+H)
345.		8.91 -8.92(d, 2H), 8.75-8.79 (m, 2H), 8.27-8.29 (d, 2H), 7.97-8.06 (m, 2H), 7.58-7.60 (dd, 1H), 7.46-7.49 (m, 2H).	MS 378 (M ⁺ +H)

EXA MPLE	Structure	¹ H NMR	MS (ESI)
346.	N N N H ₂ N	8.2 (s, 1H), 8.98-9.00 (d, J=6, 1H), 8.84-8.85(d, J=3, 1H), 8.55-8.59 (m, 2H), 8.33-8.35 (d, J=6, 1H), 8.10- 8.12 (t, 1H), 8.64-8.66 (t, 1H), 7.58 (s, 2H), 7.39 (s, 1H), 7.33-7.38 (m, 2H).	MS 340.1 (M ⁺ +H)
347.		8.85 (br s, 1H), 8.74 (d, 1H), 8.6 (d, 1H), 8.3 (d, 1H), 8.1-8.05 (m, 2H), 7.95 (s, 1H), 7.92 (d, 1H), 7.6-7.55 (m, 1H), 7.5 (d, 1H), 7.4-7.37 (m, 1H), 3.98 (s, 3H).	MS 331.8 (M ⁺ +H).

Other variations or modifications, which will be obvious to those skilled in the art, are within the scope and teachings of this invention. This invention is not to be limited except as set forth in the following claims.

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WHAT IS CLAIMED IS:

1. A compound represented by Formula (I):

$$W$$
 X
 $N = N$
 $N = N$
 (1)

or a pharmaceutically acceptable salt thereof, wherein

X and Y each independently is aryl or heteroaryl wherein at least one of X and Y is a heteroaryl with N adjacent to the position of attachment to A or B respectively;

X is optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

 R^1 , R^2 , and R^3 each independently is $-C_{0-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, $-C_{1-6}$ alkyl, $-O(C_{0-6}$ alkyl), $-O(C_{3-7}$ cycloalkyl), $-O(C_{0-6}$ alkyl), $-N(C_{0-6}$ alkyl) (C₃₋₇cycloalkyl), $-N(C_{0-6}$ alkyl) (aryl) substituents; R^4 is $-C_{1-6}$ alkyl, $-C_{3-7}$ cycloalkyl, heteroaryl, or aryl; optionally

substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents;

A is $-C_0$ -4alkyl, $-C_0$ -2alkyl-SO- C_0 -2alkyl-, $-C_0$ -2alkyl-SO2- C_0 -2alkyl-, $-C_0$ -2

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-N(C₀₋₆alkyl)(aryl) substituents;

 $Wis-C_3-7 cycloalkyl, -heteroC_3-7 cycloalkyl, -C_0-6 alkylaryl, or-C_0-6 alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2, -C_1-6 alkyl, -C_1-6 alkynyl, -OR^1, -NR^1R^2, -C(=NR^1)NR^2R^3, -N(=NR^1)NR^2R^3, -NR^1COR^2, -NR^1CO_2R^2, -NR^1SO_2R^4, -NR^1CONR^2R^3, -SR^4, -SO_2R^4, -SO_2NR^1R^2, -COR^1, -CO_2R^1, -CONR^1R^2, -C(=NR^1)R^2, or-C(=NOR^1)R^2 substituents;$

Y is optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups;

R5, R6, and R7 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), -N(C0-6alkyl)(aryl) substituents; R8 is -C1-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -N(C0-6alkyl), -

 $B is -C_0-4alkyl, -C_0-2alkyl-SO-C_0-2alkyl-, -C_0-2alkyl-SO_2-C_0-2alkyl-, -C_0-2alkyl-CO-C_0-2alkyl-, -C_0-2alkyl-NR^{10}CO-C_0-2alkyl-, -C_0-2alkyl-NR^{10}SO_2-C_0-2alkyl- or -heteroC_0-4alkyl;$

R⁹ and R¹⁰ each independently is -C₀-6alkyl, -C₃-7cycloalkyl, heteroaryl, or aryl; any of which is optionally substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -O(aryl), -N(C₀-6alkyl)(C₀-6alkyl)(C₃-7cycloalkyl), -N(C₀-6alkyl)(aryl) substituents;

Z is -C₃-7cycloalkyl, -heteroC₃-7cycloalkyl, -C₀-6alkylaryl, or -C₀-6alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO₂, -C₁-

6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents;

one of W and Z is optionally absent; and any N may be an N-oxide.

2. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

X is 2-pyridyl optionally substituted with 1-4 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

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3. The compound according to Claim 2, or a pharmaceutically acceptable salt thereof, wherein

Y is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C1₋6alkyl, -C1₋6alkenyl, -C1₋6alkynyl, -OR5, -NR5R6, -C(=NR5)NR6R7, -SR8, -N(=NR5)NR6R7, -NR5COR6, -NR5CO₂R6, -NR5SO₂R8, -NR5CONR6R7, -SR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C1₋6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1₋6alkyl, -O(C0₋6alkyl), -O(C3₋7cycloalkyl), -N(C0₋6alkyl)(C3₋7cycloalkyl), or -N(C0₋6alkyl)(aryl) groups..

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-N(C₀₋₆alkyl)(aryl) groups...

-N(C₀₋₆alkyl)(aryl) groups.

4. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

Y is 2-pyridyl optionally substituted with 1-4 independent halogen,
-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷. -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,
-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,
-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), or

- 5. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein
- X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SO₂R⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), -N(C₀-6alkyl), or
 - 6. The compound according to Claim 5, or a pharmaceutically acceptable salt thereof, wherein

Y is 2-pyridyl optionally substituted with 1-4 independent halogen,

-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,

-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,

-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁
6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further

substituted with 1-5 independent halogen, -CN, $-C_{1}$ -6alkyl, $-O(C_{0}$ -6alkyl), $-O(C_{3}$ -7cycloalkyl), -O(aryl), $-N(C_{0}$ -6alkyl)(C_{0} -6alkyl), $-N(C_{0}$ -6alkyl)(C_{0} -6al

7. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

Y is 1,3-thiazolyl optionally substituted with 1-2 independent halogen,

-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,

-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,

-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

8. The compound according to Claim 7, or a pharmaceutically acceptable salt thereof, wherein

X is phenyl optionally substituted with 1-5 independent halogen, –CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, –OR¹, –NR¹R², –C(=NR¹)NR²R³, -N(=NR¹)NR²R³, –NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, –NR¹CONR²R³, –SR⁴, -SOR⁴, –SO₂R⁴, –SO₂NR¹R², -COR¹, -CO₂R¹, –CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the –C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, –CN, –C₁-6alkyl, –O(C₀-6alkyl), –O(C₃-7cycloalkyl), –N(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or –N(C₀-6alkyl)(aryl) groups..

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9. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

W is $-C_{0-6}$ alkylaryl, or $-C_{0-6}$ alkylheteroaryl optionally substituted with 1-7 independent halogen, -CN, NO_2 , $-C_{1-6}$ alkyl, $-C_{1-6}$ alkenyl, $-C_{1-6}$ alkynyl,

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 $-OR^{1}, -NR^{1}R^{2}, -C(=NR^{1})NR^{2}R^{3}, -N(=NR^{1})NR^{2}R^{3}, -NR^{1}COR^{2}, -NR^{1}CO_{2}R^{2}, -NR^{1}SO_{2}R^{4}, -NR^{1}CONR^{2}R^{3}, -SR^{4}, -SOR^{4}, -SO_{2}R^{4}, -SO_{2}NR^{1}R^{2}, -COR^{1}, -CO_{2}R^{1}, -CONR^{1}R^{2}, -C(=NR^{1})R^{2}, \text{ or } -C(=NOR^{1})R^{2} \text{ substituents.}$

10. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

Y is pyrazolyl optionally substituted with 1-3 independent halogen,
-CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,
-C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸,
-NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶,
-C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

- 11. The compound according to Claim 10, or a pharmaceutically acceptable salt thereof, wherein
- X is 1phenyl optionally substituted with 1-5 independent halogen, CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl)(C₀-6alkyl)(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

12. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

Y is imidazolyl optionally substituted with 1-3 independent halogen, – CN, NO₂, -C₁-6alkyl, -C₁-6alkenyl, -C₁-6alkynyl, -OR⁵, -NR⁵R⁶,

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-C(=NR5)NR6R7, -N(=NR5)NR6R7, -NR5COR6, -NR5CO₂R6, -NR5SO₂R8, -NR5CONR6R7,-SR8, -SOR8, -SO₂R8, -SO₂NR5R6, -COR5, -CO₂R5, -CONR5R6, -C(=NR5)R6, or -C(=NOR5)R6 substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

13. The compound according to Claim 12, or a pharmaceutically acceptable salt thereof, wherein

X is phenyl optionally substituted with 1-5 independent halogen, -CN, NO₂, -C₁-6alkyl, -C₁-6alkynyl, -C₁-6alkynyl, -OR¹, -NR¹R², -C(=NR¹)NR²R³, -N(=NR¹)NR²R³, -NR¹COR², -NR¹CO₂R², -NR¹SO₂R⁴, -NR¹CONR²R³, -SR⁴, -SOR⁴, -SO₂NR¹R², -COR¹, -CO₂R¹, -CONR¹R², -C(=NR¹)R², or -C(=NOR¹)R² substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to X; wherein the -C₁-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C₁-6alkyl, -O(C₀-6alkyl), -O(C₃-7cycloalkyl), -N(C₀-6alkyl), -N(C₀-6alkyl)(C₃-7cycloalkyl), or -N(C₀-6alkyl)(aryl) groups.

14. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein

X is 3-pyridyl optionally substituted with 1-4 independent halogen, -CN, NO₂, -C1-6alkyl, -C1-6alkenyl, -C1-6alkynyl, -OR⁵, -NR⁵R⁶, -C(=NR⁵)NR⁶R⁷, -N(=NR⁵)NR⁶R⁷, -NR⁵COR⁶, -NR⁵CO₂R⁶, -NR⁵SO₂R⁸, -NR⁵CONR⁶R⁷, -SR⁸, -SOR⁸, -SO₂R⁸, -SO₂NR⁵R⁶, -COR⁵, -CO₂R⁵, -CONR⁵R⁶, -C(=NR⁵)R⁶, or -C(=NOR⁵)R⁶ substituents, wherein optionally two substituents are combined to form a cycloalkyl or heterocycloalkyl ring fused to Y; wherein the -C1-6alkyl substituent, cycloalkyl ring, or heterocycloalkyl ring each optionally is further substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), or -N(C0-6alkyl)(aryl) groups.

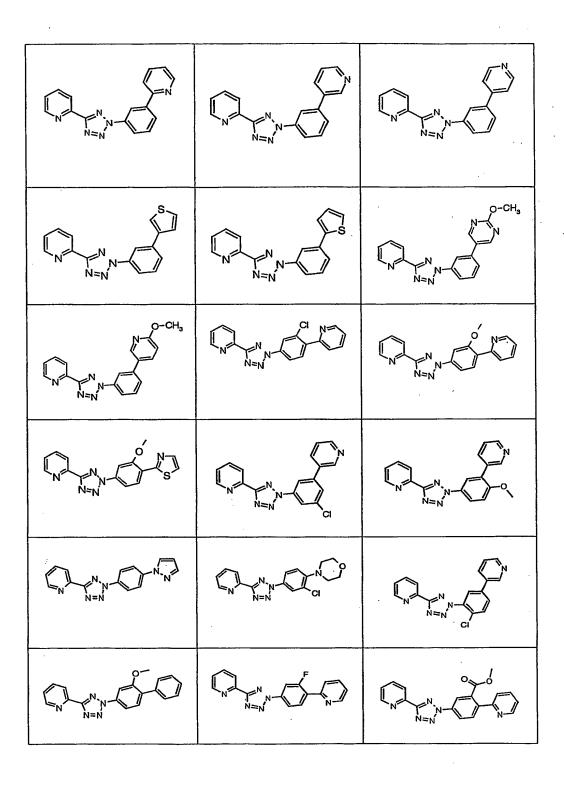
15. The compound according to Claim 1, consisting of:

- 5 1-methyl-3-[3-(5-pyridin-2-yl-2*H*-tetrazol-2-yl)phenyl]imidazolidin-2-one;
 - 2-[2-(4-pyridin-2-ylphenyl)-2*H*-tetrazol-5-yl]pyridine;
 - 2-[2-(4-pyridin-4-ylphenyl)-2*H*-tetrazol-5-yl]pyridine;
 - $2-\{2-[3-(1H-\mathrm{imidazol-1-yl})\mathrm{phenyl}]-2H-\mathrm{tetrazol-5-yl}\}\mathrm{pyridine}; \\$
 - 2-[2-(2-pyrazin-3-ylphenyl)-2H-tetrazol-5-yl]pyridine;
- 10 2-[2-(4-morpholin-3-ylphenyl)-2*H*-tetrazol-5-yl]pyridine;
 - 2-{2-[3-(2H-tetrazol-5-yl)phenyl]-2H-tetrazol-5-yl}pyridine;
 - 2-pyridin-2-yl-5-(5-pyridin-2-yl-2*H*-tetrazol-2-yl)benzonitrile;

or a pharmaceutically acceptable salt thereof.

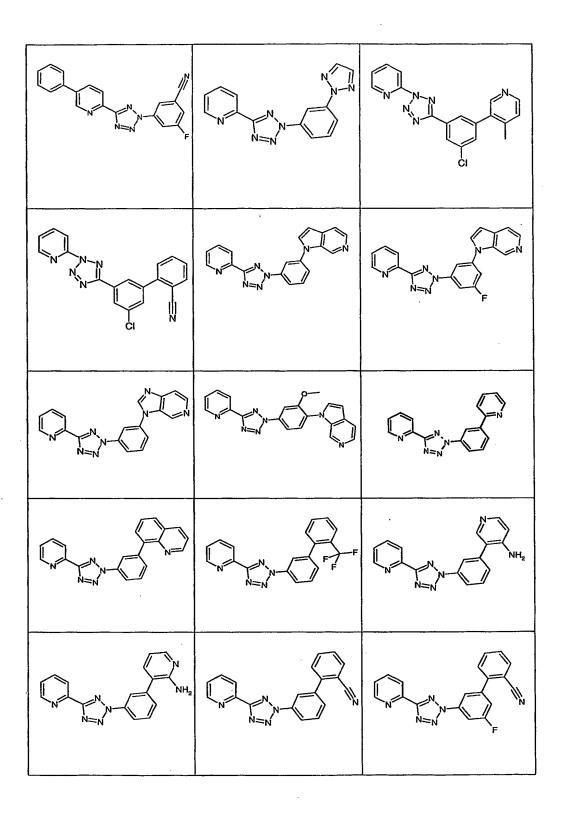
16. The compound according to Claim 1, consisting of:

	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N
N=N H ₃ C	N=N N=N	N N N N N N N N N N N N N N N N N N N

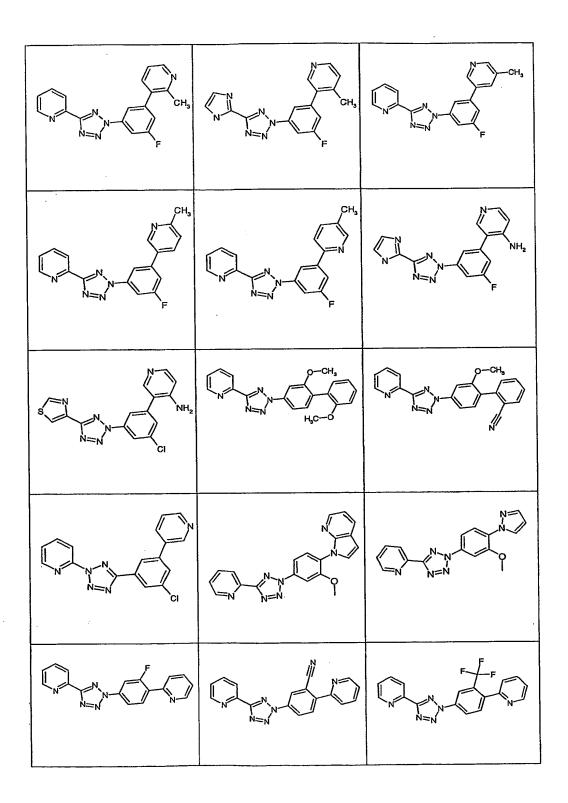


	N=N N=N
N N N N N N N N N N N N N N N N N N N	N=N N=N
N=N N=N	

	O-CH ₃	N=N N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-
O-CH ₃ N-N H ₂ N	N=N N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	N N N N N N N N N N N N N N N N N N N
O-CH ₃	O-CH ₃	O-CH,
0-CH ₃	N N N CH ₃	O-CH ₃ N=N N-N
H ₃ C N N C CH ₃	H ₃ C N=N N O CH ₃	

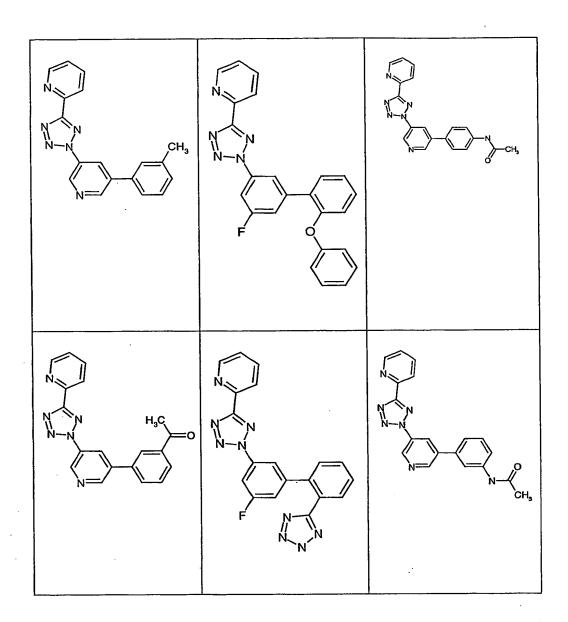


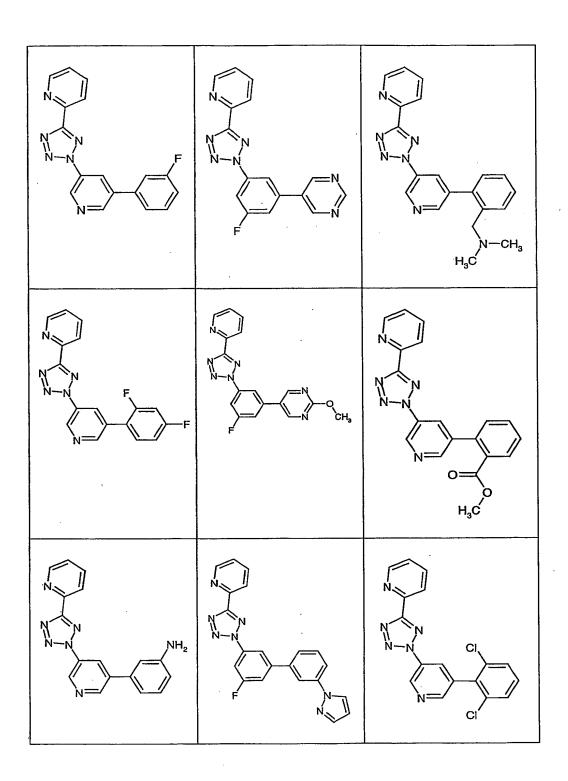
N N N N F	NH ₂	CI N=N
Br Name of the state of the sta	N N H ₃ C	
N N N N N N N N N N N N N N N N N N N	H ₃ C N	N N N N N N N N N N N N N N N N N N N
N N N N N N N N N N N N N N N N N N N	NH ₂	CH ₃
CH.	N N N N N N N N N N N N N N N N N N N	N N N N F

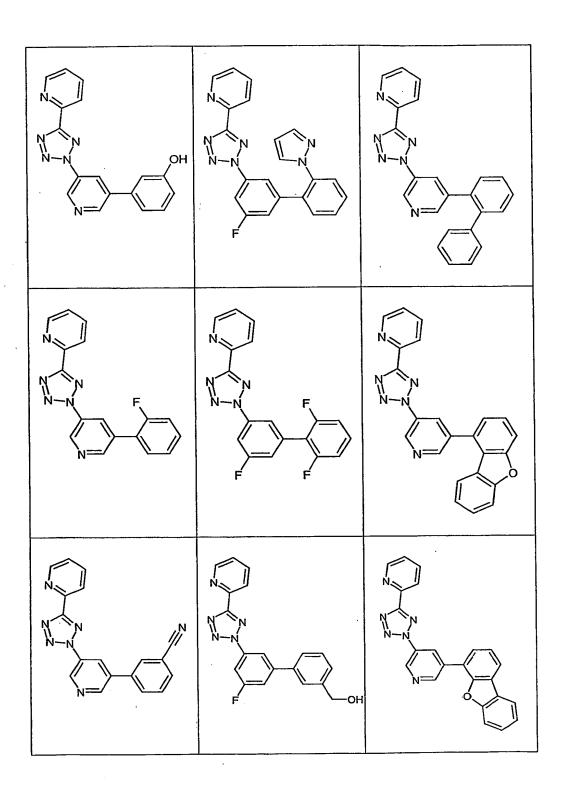


F F N N N N N N N N N N N N N N N N N N		N CI
N-N-N-CI	N CH ₃ CH ₃ CH ₃	N N N N N N N N N N N N N N N N N N N
N N N N N N N N N N N N N N N N N N N	N N N CH ₃	N N N N N N N N N N N N N N N N N N N

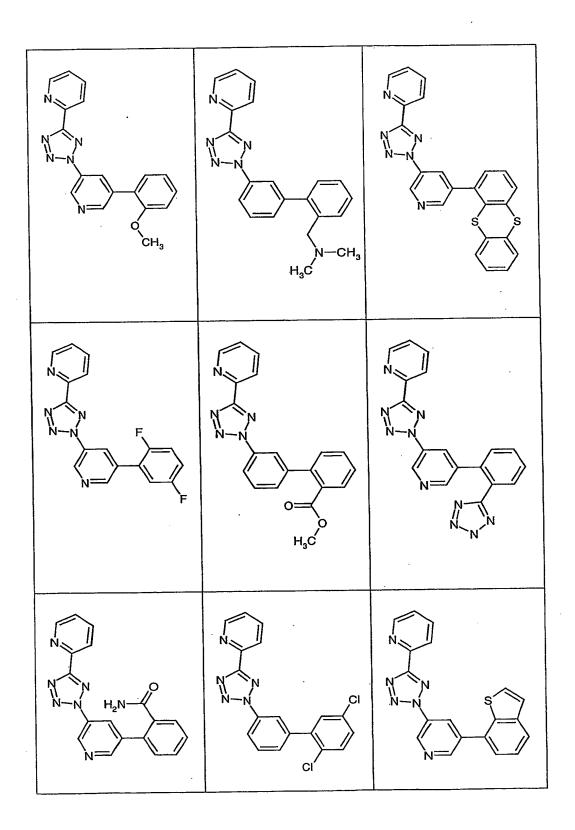
N-N N-N F F	N N N CH ₃	N CH ₃ CH ₃
N N N N N N N N N N N N N N N N N N N	F O H ₃ C	N N CH ₃
N-N N-N CH ₃	N N N N N N N N N N N N N N N N N N N	



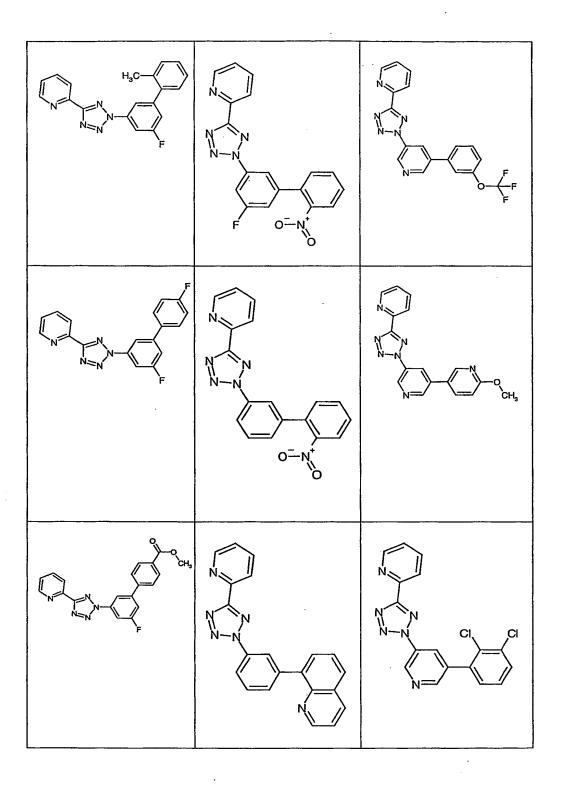




N-N H ₃ C	CH ₃	
N-N H ₃ C CH ₃	Z Z CH ₃	
N-N N-N CH ₃	N CH _s	



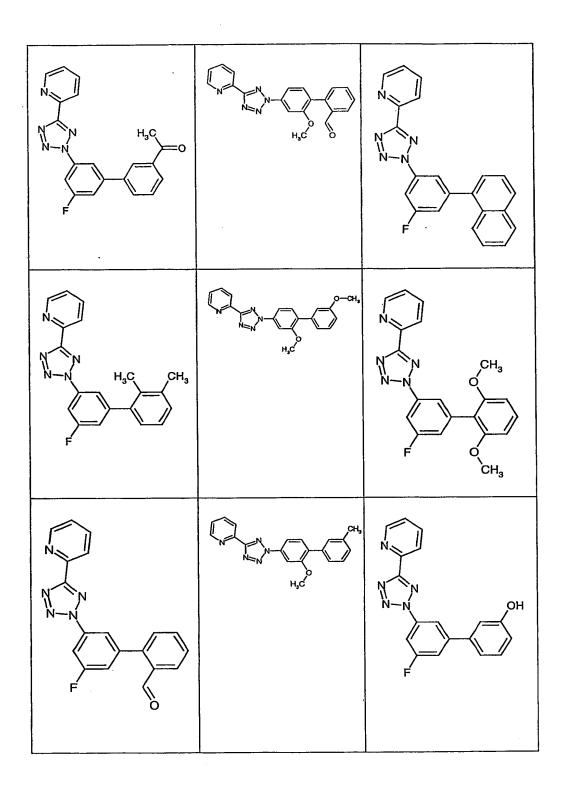
H ₃ C	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	
	0=0=0 0=0=0 2	N N CH ₃

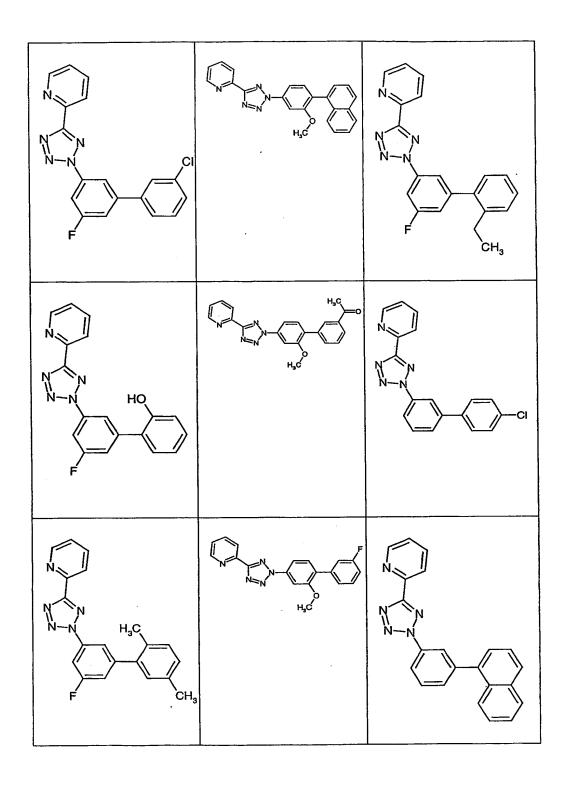


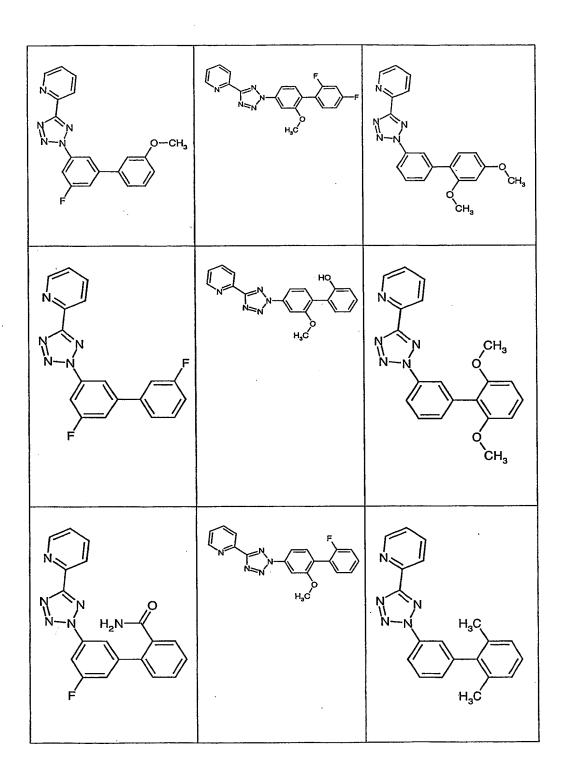
Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	N N CH ₃	N N N CH ₃
CH ₃	Z Z Z H H H	N H ₃ C
Z Z CI	Z Z Z CH ₃	N H ₃ C CH ₃

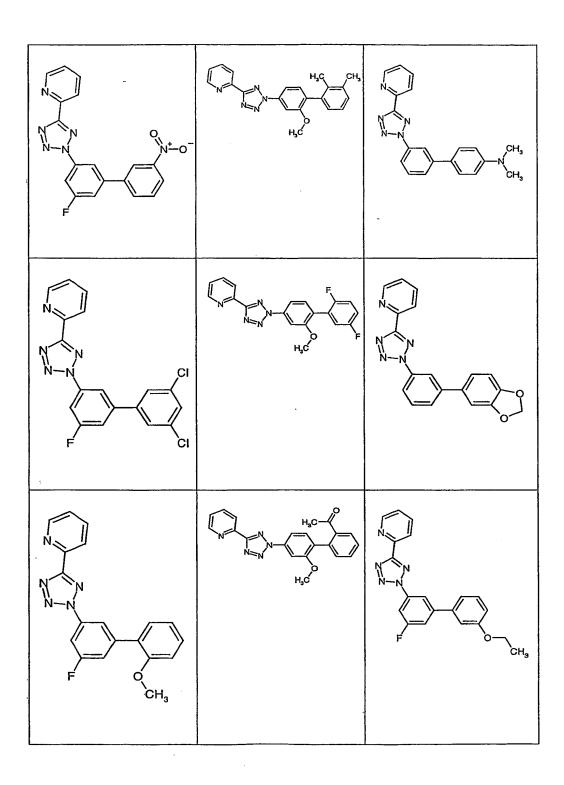
Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	H ₉ C N=N=N=H ₉ C	N-N N-N CH ₃
N N F F	H _a cc	
N N N CI	H,C CH,	O-CH ₃

N CH ₃	N N N H ₃ C	CH ₃
F H ₃ C	NNN H ₃ C	O-CH ₃
N CI	CI NNN H ₃ C	N CH ₃

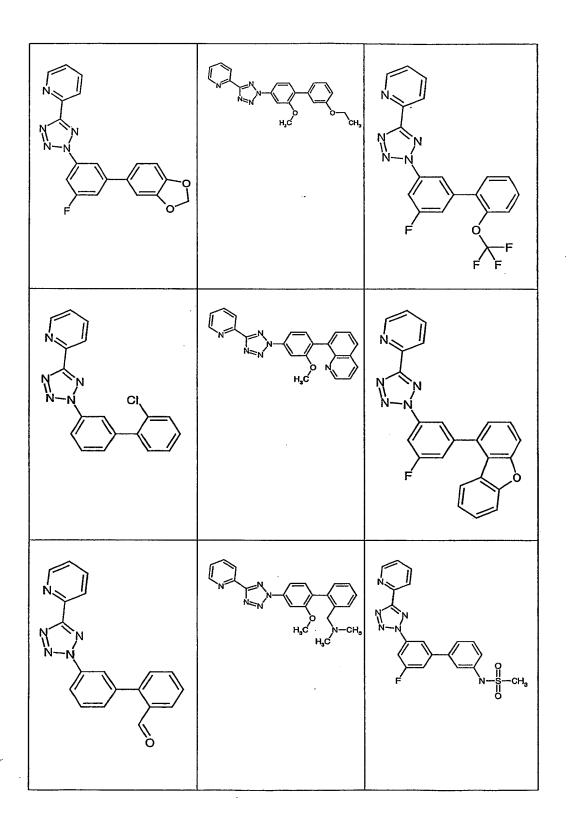








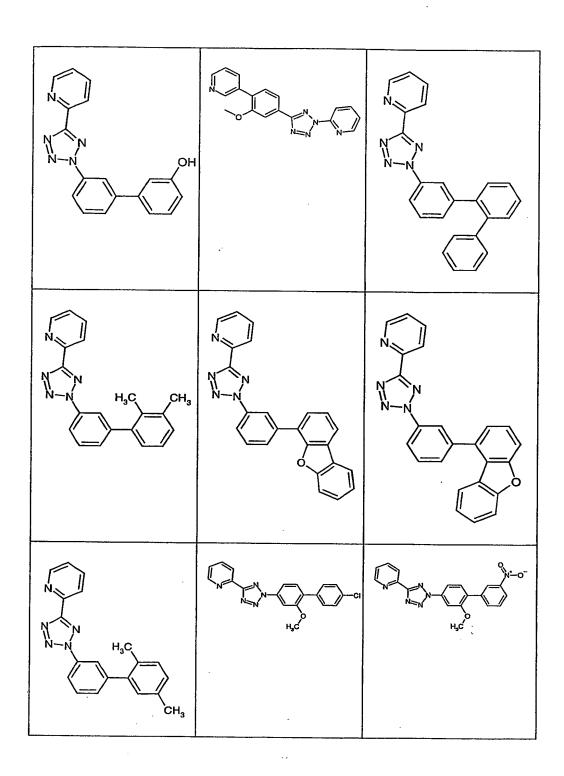
N CH ₃	H ₂ N O H ₃ C O	N CI
N F F	N N N CH ₃	N CI
N F	N N N N N N N N N N N N N N N N N N N	

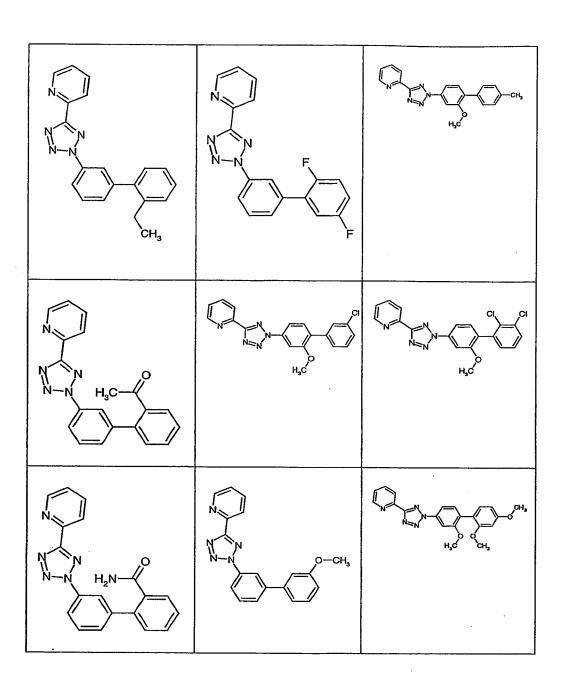


	N N CI	N N N N N N N N N N N N N N N N N N N
N N CH ₃	N N N CI	Z Z Z F F F
N-N CH ₃	N N N N N N N N N N N N N N N N N N N	N N N CH ₃

N H ₃ C O	H ₉ C	N N N N N N N N N N N N N N N N N N N
N N CI	N N O CH ₃	N N N CH ₃
N N N N N N N N N N N N N N N N N N N	OH H ₂ C	CH ₃

N N CI	H ₃ C
N F	N N N CH ₃
N CI CI	

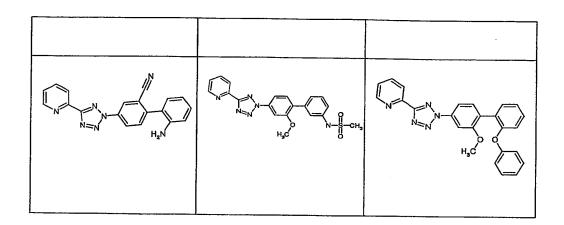




N-N HO	CH _s OCH _s OCH _s CH _s	H ₃ C OH
N P F		H ₃ C N=N OH ₃ C
N N CH ₃	H ₃ C N N ₂ C H ₃ C	N N N N N N N N N N N N N N N N N N N
N CH4	N H ₃ C	NNN CH ₃

-		
H ₃ C CI	N N N H ₃ C	H ₃ C CH,
H,C Och,	H _g C F F	N N O CH ₃
H,C F	N N N S S S	NNN H ₃ C
H ₃ C CH ₃	N N N N N N N N N N N N N N N N N N N	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-
	H ₂ C N	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-

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or a pharmaceutically acceptable salt thereof.

- 17. A pharmaceutical composition comprising:
- a therapeutically effective amount of the compound according to claim 1, or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.
- 18. The pharmaceutical composition according to claim 14, further 10 comprising i) an opiate agonist, ii) an opiate antagonist, iii) a calcium channel antagonist, iv) a 5HT receptor agonist, v) a 5HT receptor antagonist, vi) a sodium channel antagonist, vii) an NMDA receptor agonist, viii) an NMDA receptor antagonist, ix) a COX-2 selective inhibitor, x) an NK1 antagonist, xi) a non-steroidal anti-inflammatory drug, xii) a GABA-A receptor modulator, xiii) a dopamine agonist, xiv) a dopamine antagonist, xv) a selective serotonin reuptake inhibitor, xvi) a 15 tricyclic antidepressant drug, xvii) a norepinephrine modulator, xviii) L-DOPA, xix) buspirone, xx) a lithium salt, xxi) valproate, xxii) neurontin, xxiii) olanzapine, xxiv) a nicotinic agonist, xxv) a nicotinic antagonist, xxvi) a muscarinic agonist, xxvii) a muscarinic antagonist, xxviii) a selective serotonin and norepinephrine reuptake 20 inhibitor (SSNRI), xxix) a heroin substituting drug, xxx) disulfiram, or xxxi) acamprosate.
 - 19. The pharmaceutical composition according to claim 18, wherein said heroin substituting drug is methadone, levo-alpha-acetylmethadol, buprenorphine or naltrexone.

20. A method of treatment or prevention of pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

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- 21. A method of treatment or prevention of a pain disorder wherein said pain disorder is acute pain, persistent pain, chronic pain, inflammatory pain, or neuropathic pain, comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 22. A method of treatment or prevention of anxiety, depression, bipolar disorder, psychosis, drug withdrawal, tobacco withdrawal, memory loss, cognitive impairment, dementia, Alzheimer's disease, schizophrenia or panic comprising the
 step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 23. A method of treatment or prevention of disorders of
 extrapyramidal motor function comprising the step of administering a therapeutically
 effective amount, or a prophylactically effective amount, of the compound according
 to claim 1 or a pharmaceutically acceptable salt thereof.
- 24. The method of claim 23 wherein said disorder of extrapyramidal motor function is Parkinson's disease, progressive supramuscular palsy, Huntington's disease, Gilles de la Tourette syndrome, or tardive dyskinesia.
 - 25. A method of treatment or prevention of anxiety disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
 - 26. The method of claim 25 wherein said anxiety disorder is panic attack, agoraphobia or specific phobias, obsessive-compulsive disorders, post-

traumatic stress disorder, acute stress disorder, generalized anxiety disorder, eating disorder, substance-induced anxiety disorder, or nonspecified anxiety disorder.

- 27. A method of treatment or prevention of neuropathic pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 28. A method of treatment or prevention of Parkinson's Disease comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 29. A method of treatment or prevention of depression comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 30. A method of treatment or prevention of epilepsy comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 31. A method of treatment or prevention of inflammatory pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 32. A method of treatment or prevention of cognitive dysfunction comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 33. A method of treatment or prevention of drug addiction, drug abuse
 and drug withdrawal comprising the step of administering a therapeutically effective

amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

- 34. A method of treatment or prevention of bipolar disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 35. A method of treatment or prevention of circadian rhythm and sleep disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.
- 36. The method of Claim 35 wherein the circadian rhythm and sleep disorders are shift-work induced sleep disorder or jet-lag.
 - 37. A method of treatment or prevention of obesity comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/07074

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61K 31/4439; C07D 401/12 US CL : 546/268.4; 514/340				
	According to International Patent Classification (IPC) or to both national classification and IPC			
	DS SEARCHED			
	cumentation searched (classification system followed 46/268.4; 514/340	by classification symbols)		
Documentati	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) STN CAS Online: CAPLUS, REGISTRY; EAST; WEST				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages Relevant to claim No.		
A	CAPLUS Accession No: 1986:511139, Kitaeva, et activity of some tetrazole derivatives," Khimiko-Fa 20, No. 5, pages 559-63.			
	documents are listed in the continuation of Box C.	See patent family annex.		
"A" document	pecial categories of cited documents: defining the general state of the art which is not considered to be lar relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E" earlier ap	plication or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone		
	which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination		
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the art		
priority d	published prior to the international filing date but later than the ate claimed	"&" document member of the same patent family		
	ctual completion of the international search	Date of mailing of the international search report 17 JUL 2003 Authorized officer Alan Rotman Clan L. Rotman		
	23 June 2003 (23.06.2003)			
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